

List of All Chemicals

P Olea europaea (Oleaceae)

Common name(s)

Olive

Subspecies

europaea

How used

Food

*Unless otherwise noted all references are to Duke, James A. 1992. Handbook of phytochemical constituents of GRAS herbs and other economic plants. Boca Raton, FL. CRC Press.

| Chemical | Plant Part | Low PPM | High PPM | StdDev | *Reference |
|--|--|---------|----------|--------|--|
| (+)-CYCLO-OLIVIL | Branches | -- | -- | | Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar. |
| 1-ACETOXYPINORESINOL | Bark | -- | -- | | * |
| Activities (1) | | | | | |
| Phosphodiesterase-Inhibitor | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| 1-CAFFEYL-GLUCOSE | Fruit | -- | -- | | Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar. |
| 2-HYDROXYCINNAMIC-ACID | Fruit | -- | -- | | * |
| 3,4,5-TRIMETHOXYBENZOIC-ACID | Fruit | -- | -- | | * |
| 3,4-DIHYDROXYBENZOIC-ACID | Fruit | -- | -- | | * |
| Activities (3) | | | | | |
| Antiaggregant | | | | | |
| Antibacterial | | | | | |
| Antisickling | | | | | |
| 3,4-DIHYDROXYCINNAMIC-ACID | Fruit | -- | -- | | * |
| 3,4-DIHYDROXYPHENYLETHANOL | Fruit | -- | -- | | * |
| Activities (1) | | | | | |
| Calcium-Antagonist 31.6 ug/ml gpg | | | | | |
| 3,4-DIHYDROXYPHENYLETHANOL-4-DIGLUCOSIDE | Fruit | -- | -- | | Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar. |
| 3,4-DIHYDROXYPHENYLETHANOL-4-MONOGLUCOSIDE | Fruit | -- | -- | | Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar. |
| 3,4-DIHYDROXYPHENYLETHYLALCOHOL | Fruit | -- | -- | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| 3,4-DIHYDROXYPHENYLGLYCOL | Fruit | -- | -- | | * |
| 3,4-DIMETHOXY-BENZOIC-ACID | Fruit | -- | -- | | * |
| 4-HYDROXY-3,5-DIMETHOXYCINNAMIC-ACID | Fruit | -- | -- | | * |
| 4-HYDROXY-3-METHOXY-BENZOIC-ACID | Fruit | -- | -- | | * |
| 4-HYDROXY-3-METHOXY-CINNAMIC-ACID | Fruit | -- | -- | | * |
| 4-HYDROXY-3- | Fruit | -- | -- | | * |

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|--|---|----|----|---|
| 4-HYDROXY-BENZOIC-ACID | Fruit | -- | -- | * |
| 4-HYDROXYCINNAMIC-ACID | Fruit | -- | -- | * |
| Activities (1) | | | | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. | | | |
| 4-HYDROXYPHENYLACETIC-ACID | Fruit | -- | -- | * |
| 4-HYDROXYPHENYLETHANOL | Fruit | -- | -- | * |
| AESCULETIN | Stem | -- | -- | Chemical Constituents of Oriental Herbs (3 diff. books) |
| Activities (32) | | | | |
| 5-Lipoxygenase-Inhibitor IC50=0.1-5 uM | Okada,Y,et al.1995.Search for Naturally Occurring Substances to Prevent the Complications of Diabetes.II.Inhibitory Effect of Coumarin and Flavonoid Derivatives on Bovine Lens Aldose Reductase and Rabbit Platelet Aggregation.Chem Pharm Bull43(8):1385-1387 | | | |
| Aldose-Reductase-Inhibitor IC50=0.74 ug/ml cow | Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp. | | | |
| Analgesic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | |
| Antiarrhythmic | Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp. | | | |
| Antiasthmatic? | HerbalGram No. 24, page 37. | | | |
| Antibacterial | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | |
| Anticapillary-Fragility | Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp. | | | |
| Antidiarrheic | HerbalGram No. 24, page 37. | | | |
| Antiescherichic | | | | |
| Antiinflammatory IC50=0.1-5 uM | Economic & Medicinal Plant Research, 6: 235. | | | |
| Antimutagenic | Economic & Medicinal Plant Research, 6: 235. | | | |
| Antipyretic | | | | |
| Antiseptic | | | | |
| Antistaphylococccic | | | | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. | | | |
| Cardiodepressant | | | | |
| Choleretic | Fitoterapia No.5-1986. | | | |
| Cosmetic | | | | |
| Cytotoxic | Mills, Simon and Bone, Kerry. 2000. Phytotherapy. Churchill Livingston, Edinburgh. | | | |
| Dermatitogenic | Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp. | | | |
| Fungicide | | | | |
| Hepatoprotective 6 mg/kg mus | | | | |
| Hypertensive | Chemical Constituents of Oriental Herbs (3 diff. books) | | | |
| Lipoxygenase-Inhibitor | | | | |
| Musculotropic | Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp. | | | |
| Myorelaxant | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. | | | |
| Pesticide | | | | |
| Prostaglandin-Synthesis-Inhibitor 100 uM rbt | Hung, H.C., Lai, M.W., Wang, H.R., Chung, Y.L., Hsieh, L.M., Chen, C.C. 1993. Antiproliferative Effect of Esculetin on Vascular Smooth Muscle Cells: Possible Roles of Signal Transduction Pathways. Eur J Pharmacol, 237(1): 39-44. | | | |
| Sunscreen IC98=20 mg/l | Lazarova*, G., Kostova, I., Neychev, H. 1992. Photodynamic damage prevention by some hydroxycoumarins. Fitoterapia 64(2): 134-136, 1993. | | | |
| Sunscreen IC100=50 mg/l | Lazarova*, G., Kostova, I., Neychev, H. 1992. Photodynamic damage prevention by some hydroxycoumarins. Fitoterapia 64(2): 134-136, 1993. | | | |
| UV-Screen | Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp. | | | |
| Xanthine-Oxidase-Inhibitor IC52=10 uM | | | | |
| AESCLIN | Stem | -- | -- | Chemical Constituents of Oriental Herbs (3 diff. books) |
| Activities (33) | | | | |
| Aldose-Reductase-Inhibitor 10 ug/ml cow | Okada,Y,et al.1995.Search for Naturally Occurring Substances to Prevent the Complications of Diabetes.II.Inhibitory Effect of Coumarin and Flavonoid Derivatives on Bovine Lens Aldose Reductase and Rabbit Platelet Aggregation.Chem Pharm Bull43(8):1385-1387 | | | |
| Analgesic | | | | |
| AntiCVS | | | | |
| AntiRaynaud's | | | | |
| Antiacrocyanotic | | | | |
| Antiaging | | | | |
| Antialope cic | | | | |
| Antiarthritic | | | | |
| Anticapillary-Fragility | Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp. | | | |
| Anticellulitic | | | | |
| Antidermatitic | | | | |
| Antirythemic 4 mg orl man | | | | |

| | |
|------------------------|--|
| Antihistaminic | |
| Antiinflammatory | |
| Antioxidant | Jim Duke's personal files. |
| Antipanniculopathic | |
| Antipyretic | |
| Antiseborrheic | |
| Bacteristat | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Cancer-Preventive | Jim Duke's personal files. |
| Cardiotonic | |
| Choleretic | Fitoterapia No.5-1986. |
| Cosmetic | |
| Diuretic | |
| Hypertensive | |
| Lipoxygenase-Inhibitor | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Microvasculokinetic | |
| Sunscreen | |
| Sunscreen IC39=20 mg/l | Lazarova*, G., Kostova, I., Neychev, H. 1992. Photodynamic damage prevention by some hydroxycoumarins. <i>Fitoterapia</i> 64(2): 134-136, 1993. |
| Sunscreen IC26=50 mg/l | |
| Toxic | |
| Vasoprotective | |

ALPHA-TOCOPHEROL Oil -- 119.0 -0.52 *

Activities (32)

| | |
|-----------------------------|---|
| Antialzheimeran | |
| Antiangular | |
| Antiarthritic | |
| Antiasthmatic | |
| Antiatherosclerotic | Soumyanath, A. Ed. 2006. <i>Traditional Medicines for Modern Times - Antidiabetic Plants</i> . CRC Press, Taylor & Francis Group. Boca Raton, FL. 314 pp. |
| Anticancer | |
| Anticataract | |
| Anticonvulsant Synergen | |
| Antidementia | |
| Antidiabetic | Soumyanath, A. Ed. 2006. <i>Traditional Medicines for Modern Times - Antidiabetic Plants</i> . CRC Press, Taylor & Francis Group. Boca Raton, FL. 314 pp. |
| Antiinfarctal | Soumyanath, A. Ed. 2006. <i>Traditional Medicines for Modern Times - Antidiabetic Plants</i> . CRC Press, Taylor & Francis Group. Boca Raton, FL. 314 pp. |
| Antiinfertility | |
| Antiischemic | |
| Antimaculitic | |
| Antimutagenic | Economic & Medicinal Plant Research, 6: 235. |
| Antineuropathic | |
| Antioxidant 5 x quercetin | |
| Antioxidant IC34=10 uM | |
| Antiparkinsonian | |
| Antiradicular 5 x quercetin | |
| Antiretinotic | |
| Antirheumatic | |
| Antistroke | |
| Antitumor | |
| Antitumor (Bladder) | |
| Antitumor (Prostate) | |
| Antitumor (Stomach) | |
| Antitumor-Promoter | |
| Cancer-Preventive | |
| Cardioprotective | |
| Circulotonic | |
| Immunomodulator | |

APIGENIN Leaf -- -- Rizk, A.F.M. and Al-Nowaihi, A.S., *The Phytochemistry of the Horticultural Plants of Qatar*, Scientific and Applied Research Centre, University of Qatar.

Activities (101)

11B-HSD-Inhibitor

| | |
|--|--|
| AntiHIV IC72=200 ug/ml | |
| AntiHIV IC50=143 ug/ml | |
| Antiaflatoxin IC50=9.52 uM | |
| Antiaflatoxin IC50=2.57 ppm | |
| Antiaggregant | |
| Antiaging | |
| Antiallergic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiangiogenic 4 uM | |
| Antiarrhythmic | |
| Antibacterial | Recio, M. C., Rios, J. L., and Villar, A., A review of some antimicrobial compounds isolated from medicinal plants reported in the literature 1978-1988, <i>Phytotherapy Research</i> , 3(4), 1989, 117-125. |
| Anticancer (Lung) | |
| Anticomplementary | |
| Antidermatitic | Bisset, N.G., ed. 1994. <i>Herbal Drugs and Phytopharmaceuticals</i> . CRC Press. Boca Raton, FL. 566 pp. |
| Antiestrogenic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiherpetic 20-54 ug/ml | |
| Antihistaminic IC50=10-35 uM | |
| Antiinflammatory #NAME? | |
| Antiinflammatory IC~65=1,000 uM | |
| Antileukemic 20-50 uM | |
| Antimelanomic 1-50 uM | |
| Antimetastatic 1-50 uM | |
| Antimutagenic ID50=10-40 nM | Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507. ACS, Washington 402 pp. |
| Antimutagenic ID50=0.55 ug/ml | |
| Antioxidant 1.5 x Vit. E | |
| Antioxidant IC28.5=62.5 ug/ml | |
| Antiperistaltic | |
| Antiproliferant 1-50 uM | |
| Antiproliferant IC50=155 uM | |
| Antispasmodic EC50=1-5 uM | |
| Antistress 10 mg/kg | |
| Antithyroid | Jim Duke's personal files. |
| Antitumor 1-50 uM | |
| Antitumor (Breast) 1-50 uM | |
| Antitumor (Lung) | |
| Antitumor (Skin) | |
| Antiviral 20-54 ug/ml | |
| Anxiolytic 10 mg/kg | |
| Apoptotic 12-60 uM | |
| Aromatase-Inhibitor IC65=1 uM/ | Journal of Medicinal Food 2: 235.1999. |
| Beta-Glucuronidase-Inhibitor IC50=~40 uM | |
| CNS-Depressant | |
| COX-1-Inhibitor IC65=1,000 uM | |
| COX-2-Inhibitor IC>65=1,000 uM | |
| COX-2-Inhibitor <40 uM | |
| COX-2-Inhibitor IC50=<15 uM | |
| Calcium-Antagonist? | Biochimica & Biophysica Acta, 1115: 69, 1991. |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Choleretic | |
| Cyclooxygenase-Inhibitor | |
| Cytochrome-P450-1A1-Inhibitor | |
| Cytotoxic IC88=10 ug/ml | Planta Medica, 57: A113, 1991. |
| Cytotoxic 1-50 uM | |
| Cytotoxic IC50=9.5 uM | |
| DNA-Protective | |
| Deiodinase-Inhibitor | Jim Duke's personal files. |
| Differentiator MIC=30 uM | |
| Differentiator IC40=40 uM | |
| Diuretic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |

uM/l

| | | | | | |
|-----------------------------------|--|--|--|--|--|
| Estrogenic 16% genistein | | | | | |
| Estrogenic EC50=1 uM | | | | | |
| HIF-1alpha-Inhibitor | | | | | |
| Hyaluronidase-Inhibitor | | | | | |
| IC50+=50-250 uM | | | | | |
| Hypotensive | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| ICAM-1-Inhibitor | | | | | |
| IKK-Inhibitor | | | | | |
| Inotropic | | | | | |
| Interleukin-6-Inhibitor | | | | | |
| MAO-Inhibitor | | | | | |
| MAPK-Inhibitor | | | | | |
| Musculotropic | Wichtl, M. 1984. Teedrogen. Ein Handbuch für Apotheker und Ärzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp. | | | | |
| Mutagenic | | | | | |
| Myorelaxant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| NADH-Oxidase-Inhibitor | | | | | |
| NF-kB-Inhibitor | | | | | |
| NO-Synthase-Inhibitor 5-50 uM | | | | | |
| Nodulation-Signal | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Ornithine-Decarboxylase-Inhibitor | | | | | |
| P21-Inducer 10-70 uM | | | | | |
| PKC-Inhibitor IC50=10 uM | | | | | |
| PTK-Inhibitor 10-100 uM | | | | | |
| Pesticide | | | | | |
| Polyamine-Synthesis-Inhibitor | | | | | |
| Progesterational | | | | | |
| Protein-Kinase-C-Inhibitor | | | | | |
| IC50=10-40 uM | | | | | |
| Quinone-Reductase-Inducer 20 uM | Uda, Y., Price, K. R., Williamson, G., Rhodes, M. J. C. 1997. Induction of the Anticarcinogenic Marker Enzyme, Quinone Reductase, in Murine Hepatoma Cells In Vitro by Flavonoids. <i>Cancer Lett.</i> , 120 (2): 213-216. | | | | |
| Radioprotective | | | | | |
| Sedative 30-100 mg/kg | | | | | |
| Sunscreen | | | | | |
| TNF-alpha-Inhibitor | | | | | |
| IC50=3.27 uM | | | | | |
| Topoisomerase-I-Inhibitor | Santti, R., Makela, S., Strauss, L., Korman, J., Kostian, M. L. 1998. Phytoestrogens: Potential Endocrine Disruptors in Males. <i>Toxicol Ind Health</i> , 14: 223-237. | | | | |
| Topoisomerase-II-Inhibitor | | | | | |
| 50 ug/ml | Azuma, Y., Onishi, Y., Sato, Y., Kizaki, H. 1995. Effects of Protein Tyrosine Kinase Inhibitors With Different Modes of Action on Topoisomerase Activity and Death of IL-2-Dependent CTLL-2-Cells. <i>J Biochemistry</i> , 118: 312-318. | | | | |
| Topoisomerase-II-Inhibitor | | | | | |
| IC28=18 uM | | | | | |
| Topoisomerase-II-Inhibitor | | | | | |
| IC45=180 uM | | | | | |
| Uterotrophic EC50=0.1-25 uM/l | Journal of Medicinal Food 2: 227.1999. | | | | |
| VEGF-Inhibitor IC50=2-7 uM | | | | | |
| Vasodilator | | | | | |
| Xanthine-Oxidase-Inhibitor | | | | | |
| 0.36 uM | | | | | |
| iNOS-Inhibitor IC50=<15 uM | | | | | |

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|---------------------------|-------|---------|----------|-------|--|
| APIGENIN-7-DI-O-XYLOSIDIE | Leaf | -- | -- | | Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar. |
| APIGENIN-7-GLUCOSIDE | Leaf | -- | -- | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| ARABINOSE | Fruit | -- | -- | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| ARACHIDIC-ACID | Fruit | 300.0 | 800.0 | -0.92 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| ASH | Twig | -- | 85000.0 | | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |
| ASH | Leaf | -- | 61000.0 | -1.02 | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |
| ASH | Fruit | 64000.0 | 294000.0 | 6.15 | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |
| BENZOIC-ACID | Fruit | -- | -- | * | |

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|----------------------------------|--|
| Allergenic | Martindale's 28th |
| Anesthetic | |
| Antibacterial 33-1,250 ppm | |
| Antibacterial MBC=800 ug/ml | |
| Antitotic | Martindale's 28th |
| Antipyretic | |
| Antisalmonella MIC=800 ug/ml | |
| Antiseptic 800 ug/ml | |
| Antiyeast MFC=1,600 ug/ml | |
| Choleretic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, Londón. 791 pp. |
| Expectorant | |
| FLavor FEMA 250 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Fungicide MFC=1,600 ug/ml | |
| Insectifuge | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Pesticide | |
| Phytoalexin | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Tyrosinase-Inhibitor ID50=710 uM | |
| Tyrosinase-Inhibitor ID50=640 uM | |
| Uricosuric | |
| Vulnerary | |

BETA-AMYRIN Leaf -- -- Chemical Constituents of Oriental Herbs (3 diff. books)

Activities (9)

| |
|----------------------------------|
| Analgesic |
| Antiedemic IC27=40 mg/kg ipr rat |
| Antiinflammatory |
| Antinociceptive |
| Antiulcer |
| Gastroprotective |
| Hepatoprotective |
| Larvicide |
| Mosquitocide |

BETA-CAROTENE Fruit 1.8 8.3 -0.13 CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

Activities (53)

| | |
|------------------------------------|--|
| Allergenic | |
| Androgenic? | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| AntiPMS | |
| Antiacne | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiaging | |
| Antiarthritic | |
| Antiasthmatic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Anticancer | Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY. |
| Anticarcinomic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Anticervicaldysplastic | |
| Anticoronal 50 mg/man/2 days | |
| Antihyperkeratotic | |
| Antiichthyotic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antileukoplakic | |
| Antilipoperoxidant IC71=50 ug/ml | |
| Antilupus 150 mg/man/day/2 mos | Martindale's 28th |
| Antimaculitic | |
| Antimastitic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antimutagenic | Economic & Medicinal Plant Research, 6: 235. |
| Antioxidant | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiozenic | |
| Antipapillomeric | |
| Antiphoto phobic 30-300 mg/man/day | Martindale's 29th |
| Antipityriasic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiporphyrinic 30-300 mg/man/day | Martindale's 28th |
| Antiproliferant | Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY. |
| Antipsoriac | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |

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|------------------------------------|--|--|--|--|--|
| Antirheumatic | | | | | |
| Antistress | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. | | | | |
| Antitumor | Simon, P.W. Carrots and Other Horticultural Crops as a Source of Provitamin A Carotenes. <i>HortScience</i> , 25(12): 1495, 1990. | | | | |
| Antitumor (Breast) IC45=60 ug/ml | | | | | |
| Antitumor (CNS) IC43=45 ug/ml | | | | | |
| Antitumor (Colon) IC43=45 ug/ml | | | | | |
| Antitumor (Lung) IC30=60 ug/ml | | | | | |
| Antitumor (Prostate) | | | | | |
| Antitumor (Stomach) IC26=45 ug/ml | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Antiulcer 12 mg 3x/day/man/orl | | | | | |
| Antiulcer 15,000-25,000 IU/day | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. | | | | |
| Antixerophthalmic | | | | | |
| COX-1-Inhibitor IC78=50 ug/ml | | | | | |
| COX-2-Inhibitor IC82=50 ug/ml | | | | | |
| Cancer-Preventive 22 ppm | Jim Duke's personal files. | | | | |
| Chemopreventive | | | | | |
| Colorant | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. | | | | |
| Gastroprotective | | | | | |
| Immunostimulant 180 mg/man/day/orl | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Interferon-Synergist | | | | | |
| Mucogenic | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Phagocytotic | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Prooxidant 20 ug/g | | | | | |
| Thymoprotective | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Ubiquiot | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. | | | | |

| | | | | |
|---------------------------|-------|-----|-----|--|
| BETA-SITOSTEROL-GLUCOSIDE | Leaf | -- | -- | Rizk, A.F.M. and Al-Nowaihi, A.S., <i>The Phytochemistry of the Horticultural Plants of Qatar</i> , Scientific and Applied Research Centre, University of Qatar. |
| BORON | Fruit | 1.0 | 4.0 | -0.72 Betting on Boron, Unpublished draft by J. A. Duke on file at USDA, draft and papers relating to boron percentages. Includes <i>Internat. Z. Vit. Ern. Forschung</i> 43:1973 (boron). |

Activities (4)

| | | | | |
|-------------------------------|--|--|--|--|
| Androgenic 3 mg/man/day | | | | |
| Antiosteоarthritic | | | | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Antiosteoporotic 3 mg/man/day | | | | |
| Estrogenic 3 mg/man/day | | | | |

CAFFEIC-ACID

Fruit -- -- *

Activities (102)

| | |
|--|---|
| Aldose-Reductase-Inhibitor 4 ug/ml (weak activity) | Ichikawa, K., et al. 1991. Isolation and Structure Determination of Aldose Reductase Inhibitors from Traditional Thai Medicine, and Syntheses of Their Derivatives. <i>Sankyo Kenkyusho Nempo</i> , 43: 99-110. |
| Allergenic | |
| Analgesic | |
| AntiHIV EC50=200 ug/ml | |
| AntiLegionella | |
| Antiade noviral | Economic & Medicinal Plant Research, 5: 207. |
| Antiaggregate | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Antiaging | |
| Antiatherogenic | |
| Antibacterial | |
| Anticancer | |
| Anticarcinogenic | Economic & Medicinal Plant Research, 6: 189. |
| Antidepressant | |
| Antiedemic | Economic & Medicinal Plant Research, 6: 189. |
| Antielastase IC50=93 um/l | |
| Antielastase IC50=86 ug/ml (475 uM) | |
| Antiescherichic | |
| Antiflu | Economic & Medicinal Plant Research, 5: 207. |
| Antigonadotropic | Jim Duke's personal files. |
| Antihemolytic 25 uM | Ohnishi, M., Morishita, H., Iwahashi, H., Toda, S., Shirataki, Y., Kimura, M., and Kido, R. 1993. Inhibitory Effects of Chlorogenic Acids on Linoleic Acid Peroxidation and Haemolysis. <i>Phytochemistry</i> , 36(3): 579-583. 1994. |
| Antihepatoadenomic 200 ppm diet orl mus | |

| | |
|---|---|
| Antiherpetic 50 ug/ml | |
| Antiherpetic EC50=>50 ug/ml | |
| Antihistaminic | |
| Antihypercholesterolemic | Economic & Medicinal Plant Research, 6: 189. |
| Antihyperthyroid | |
| Antiinflammatory | |
| Antileukemic | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46. |
| Antileukotriene | |
| Antimelanogenic | |
| Antimutagenic | Ki Soon Rhee. Oilseed Food Ingredients Used To Minimize Oxidative Flavor Deterioration in Meat Products. Phenolic Compounds in Food and Their Effects on Health, Ch.18. |
| Antinitrosaminic | Ki Soon Rhee. Oilseed Food Ingredients Used To Minimize Oxidative Flavor Deterioration in Meat Products. Phenolic Compounds in Food and Their Effects on Health, Ch.18. |
| Antiphidic | |
| Antioxidant 50 uM | |
| Antioxidant IC57=30 ppm | |
| Antioxidant 1/3 quercetin | |
| Antioxidant 30 mM | |
| Antioxidant 1.3 x Vit. E | |
| Antioxidant 1/2 BHA | |
| Antiperoxidant IC50=44 uM | Planta Medica, 57: A54, 1991. |
| Antiperoxidant IC35=200 ug/ml | |
| Antiperoxidant IC85=100 ug/ml | |
| Antiproliferant | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46. |
| Antiprostaglandin | |
| Antiradicular 10 uM | Ohnishi, M., Morishita, H., Iwahashi, H., Toda, S., Shirataki, Y., Kimura, M., and Kido, R. 1993. Inhibitory Effects of Chlorogenic Acids on Linoleic Acid Peroxidation and Haemolysis. Phytochemistry. 36(3): 579-583. 1994. |
| Antiradicular 1/3 quercetin | |
| Antiradicular 30 mM | |
| Antiradicular IC50=32-35 uM | |
| Antiseptic | |
| Antispasmodic EC50=3.4-15 uM | Phytotherapy Research, 4: 73. |
| Antistaphylococcic | |
| Antistomatitic | Economic & Medicinal Plant Research, 5: 207. |
| Antisunburn | |
| Antithiamin | Phenolic Compounds in Food and Their Effects on Health, 69. |
| Antithyroid | Jim Duke's personal files. |
| Antitumor 200 ppm diet orl mus | |
| Antitumor (Skin) | |
| Antitumor-Promoter IC42=10 uM | Cancer Research, 48: 5941. |
| Antiulcerogenic | |
| Antivaccinia | Economic & Medicinal Plant Research, 5: 207. |
| Antiviral IC50=62.5 ug/ml | |
| Anxiolytic | |
| CNS-Active | Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp. |
| COX-2-Inhibitor IC32=100 uM | |
| Calcium-Antagonist IC50=1.2 uM rbt | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Carcinogenic 2% (diet) | |
| Chemopreventive | |
| Cholagogue | Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp. |
| Choleretic | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| Clastogenic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Co-carcinogenic | |
| Collagen-Sparing | |
| Cytoprotective | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Cytotoxic TC50=200 ug/ml | |
| DNA-Active | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| DNA-Protective | |
| Diuretic | Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp. |
| Fungicide MIC=0.4 mg/ml | |
| Hepatocarcinogenic 400 ppm diet orl mus (in the absence of alcohol) | |
| Hepatoprotective | Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chan, H. W. Yeuna, W. -W. Tso and A. Koo. World Scientific. |

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|--|--|--|--|--|--|
| Hepatotropic | | | | | |
| Histamine-Inhibitor | | | | | |
| Immunostimulant | | | | | |
| Insectifuge | Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). <i>Economic Botany</i> 48(2): 111-120, 1994. | | | | |
| Leukotriene-Inhibitor | | | | | |
| Lipoxygenase-Inhibitor IC27=5 mM | Oszmianski, J. and Lee, C.Y. 1990. Inhibitory Effect of Phenolics on Carotene Bleaching in Vegetables. <i>J. Agric. Food Chem.</i> 38: 688-690. | | | | |
| Lipoxygenase-Inhibitor IC50=62-148 uM | | | | | |
| Lyase-Inhibitor IC50=94-164 uM | | | | | |
| Metal-Chelator | McEvily, A.J., Iyengar, R., and Gross, A.T. Inhibition of Polyphenol Oxidase by Phenolic Compounds. <i>Phenolic Compounds in Food and Their Effects on Health</i> , Ch.25. | | | | |
| Ornithine-Decarboxylase-Inhibitor | Hagerman, A.E. Tannin-Protein Interactions. <i>Phenolic Compounds in Food and Their Effects on Health</i> , Ch.19. | | | | |
| Pesticide | | | | | |
| Prooxidant | | | | | |
| Prostaglandigenic | | | | | |
| Sedative 500 mg | | | | | |
| Sunscreen IC50=2.5 mg/l | Lazarova*, G., Kostova, I., Neychev, H. 1992. Photodynamic damage prevention by some hydroxycoumarins. <i>Fitoterapia</i> 64(2): 134-136, 1993. | | | | |
| Sunscreen IC91=5 mg/l | Lazarova*, G., Kostova, I., Neychev, H. 1992. Photodynamic damage prevention by some hydroxycoumarins. <i>Fitoterapia</i> 64(2): 134-136, 1993. | | | | |
| Sunscreen IC98=25 mg/l | Lazarova*, G., Kostova, I., Neychev, H. 1992. Photodynamic damage prevention by some hydroxycoumarins. <i>Fitoterapia</i> 64(2): 134-136, 1993. | | | | |
| Tumorigenic | Jim Duke's personal files. | | | | |
| Vulnerary | | | | | |
| Xanthine-Oxidase-Inhibitor IC50=39.21 uM | Mills, Simon and Bone, Kerry. 2000. <i>Phytotherapy</i> . Churchill Livingston, Edinburgh. | | | | |

CALCIUM Leaf -- 11800.0 -0.45 CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

Activities (28)

| | | | | | |
|------------------------------------|--|--|--|--|--|
| AntiPMS 1 g/day | | | | | |
| Antiallergic 500 mg/day | | | | | |
| Antianxiety | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. | | | | |
| Antiarrhythmic 500-1,500 mg | | | | | |
| Antiarthritic 1,000 mg/day | | | | | |
| Antiatherosclerotic 500 mg/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. | | | | |
| Anticlimacteric 1,000-1,500 mg/day | | | | | |
| Antidepressant | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. | | | | |
| Antidote (Aluminum) | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. | | | | |
| Antidote (Lead) | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. | | | | |
| Antihyperkinetic | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. | | | | |
| Antihypertensive | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. | | | | |
| Antiinsomniac | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. | | | | |
| Antimenopausal 1,000-1,500 mg/day | | | | | |
| Antioesity | | | | | |
| Antiosteoporotic 500-2,000 mg/day | | | | | |
| Antiperiodontic 750 mg/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. | | | | |
| Antirheumatic 1,000 mg/day | | | | | |
| Antistress 500-1,500 mg/day | | | | | |
| Antitoxic | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. | | | | |
| Anxiolytic 500-1,500 mg/day | | | | | |
| Calcium-Channel-Blocker | | | | | |
| Diuretic | | | | | |
| Hypocholesterolemic 500 mg/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. | | | | |
| Hypotensive 1 g/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. | | | | |
| Laxative 1,000-1,200 mg | | | | | |
| Tranquilizer 500-1,500 mg/day | | | | | |
| Vasodilator | | | | | |

CALCIUM Fruit 610.0 2798.0 -0.24 CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

Activities (28)

| | | | | | |
|------------------------------------|--|--|--|--|--|
| AntiPMS 1 g/day | | | | | |
| Antiallergic 500 mg/day | | | | | |
| Antianxiety | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. | | | | |
| Antiarrhythmic 500-1,500 mg | | | | | |
| Antiarthritic 1,000 mg/day | | | | | |
| Antiatherosclerotic 500 mg/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. | | | | |
| Anticlimacteric 1,000-1,500 mg/day | | | | | |

| | |
|-----------------------------------|--|
| Antidote (Aluminum) | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antidote (Lead) | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antihyperkinetic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antihypertensive | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antiinsomniac | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antimenopausal 1,000-1,500 mg/day | |
| Antiobesity | |
| Antiosteoporotic 500-2,000 mg/day | |
| Antiperiodontic 750 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antirheumatic 1,000 mg/day | |
| Antistress 500-1,500 mg/day | |
| Antitic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Anxiolytic 500-1,500 mg/day | |
| Calcium-Channel-Blocker | |
| Diuretic | |
| Hypocholesterolemic 500 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Hypotensive 1 g/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Laxative 1,000-1,200 mg | |
| Tranquilizer 500-1,500 mg/day | |
| Vasodilator | |

| | | | | | |
|---------------|-------|---------|----------|-------|--|
| CARBOHYDRATES | Fruit | 13000.0 | 60000.0 | -3.87 | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |
| CARBOHYDRATES | Twig | -- | 765000.0 | | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |
| CARBOHYDRATES | Leaf | -- | 735000.0 | 0.98 | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |
| CATECHIN | Fruit | -- | -- | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |

Activities (43)

| | |
|--|--|
| Allelochemical IC86=1 mM | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Antiaggregant IC68=200 ug/ml | |
| Antialcoholic 2,000 mg/man/day | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiarthritic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antibacterial MIC=>1,000 ug/ml | Planta Medica, 57: A42, 1991. |
| Anticariogenic | |
| Antiedemic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiendotoxic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antifeedant | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Antiflu | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antihepatitic 1 g 3x/day/man | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antihepatotoxic | Merck 11th Edition |
| Antiherpetic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antihistaminic 1,000 mg 5x/day/man | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antihyperlipidemic | Choi, J.S., Yokozawa,* T., and Oura, H. Antihyperlipidemic Effect Of Flavonoids From Prunus davidiana. Journal of Natural Products, 54(1): 218-224, 1991. |
| Antiinflammatory IC50=80 uM (cf indomethacin IC50=1 uM) | |
| Antileukemic IC50=>10 ug/ml | Life Sciences 55: 1061. |
| Antilipoperoxidant | |
| Antiosteotic 500 mg 3x/day | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antioxidant IC50=0.19 uM | |
| Antioxidant 2.4 x Vit. E | |
| Antiperiodontal | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiplaque | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiprostaglandin IC50=80 uM (cf indomethacin IC50=1 uM) | Planta Medica, 56(6): 695, 1990. |
| Antiradicular IC50=8 uM | |
| Antisclerodermic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antulcer 1 g/5x/day/man/orl | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiviral | |
| Astringent | Merck 11th Edition |
| COMP-Inhibitor | Dullo, A. G., et al. 1999. Efficacy of a green tea extract rich in catechin polyphenols and caffeine in increasing 24-h energy expenditure and fat oxidation in humans. Am. J. Clinical Nutrition, 70: 1040-1045. |
| COX-1-Inhibitor IC50=80 uM (cf indomethacin IC50=1 uM) | |
| Cancer-Preventive | |
| Carcinogenic | |

| | |
|----------------------------------|--|
| Fungicide ED50=2.9-4.6 ug/ml | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Hemostat | |
| Hepatoprotective | Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 253. |
| Hypocholesterolemic | Choi, J.S., Yokozawa,* T., and Oura, H. Antihyperlipidemic Effect Of Flavonoids From <i>Prunus davidiana</i> . Journal of Natural Products, 54(1): 218-224, 1991. |
| Immunostimulant | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Lipoxygenase-Inhibitor IC96=5 mM | Oszmianski, J. and Lee, C.Y. 1990. Inhibitory Effect of Phenolics on Carotene Bleaching in Vegetables. J. Agric. Food Chem. 38: 688-690. |
| Pesticide | |
| Propecic | |
| Xanthine-Oxidase-Inhibitor | Mills, Simon and Bone, Kerry. 2000. Phytotherapy. Churchill Livingston, Edinburgh. |

CATECHOL Fruit -- -- *

Activities (22)

| | |
|-----------------------------------|--|
| Allelochemical IC50=0.65 mM | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Allergenic | Mitchell, J. and Rook, A.J. 1923. Botanical Dermatology: plants and plant products injurious to the skin. Vancouver: Greengrass, 1979. xiii, 787 p.: ill. |
| Anticancer (Breast) | Madhavi, D. L., Bomser, J., Smith, M., Singletary, K. 1998. Isolation of Bioactive Constituents from <i>Vaccinium myrtillus</i> (Bilberry) Fruits and Cell Cultures. Plant Sci., 131(1): 95-103. |
| Antigonadotropic | |
| Antioxidant | Jim Duke's personal files. |
| Antiseptic | |
| Antistomatitis | Economic & Medicinal Plant Research, 5: 197. |
| Antithiamin | Phenolic Compounds in Food and Their Effects on Health, 69. |
| Antithyrotropic | |
| Antitumor | |
| Antitumor (Breast) | Madhavi, D. L., Bomser, J., Smith, M., Singletary, K. 1998. Isolation of Bioactive Constituents from <i>Vaccinium myrtillus</i> (Bilberry) Fruits and Cell Cultures. Plant Sci., 131(1): 95-103. |
| Antiviral | Economic & Medicinal Plant Research, 5: 197. |
| Cancer- Preventive | |
| Carcinogenic 0.8% diet | Jim Duke's personal files. |
| Carcinogenic 2% diet | |
| Co-carcinogenic | |
| Convulsant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Dermatitigenic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Herbicide | |
| Pesticide | |
| Quinone- Reductase- Inducer | Madhavi, D. L., Bomser, J., Smith, M., Singletary, K. 1998. Isolation of Bioactive Constituents from <i>Vaccinium myrtillus</i> (Bilberry) Fruits and Cell Cultures. Plant Sci., 131(1): 95-103. |
| Tumor-Promoter <0.2% diet | Jim Duke's personal files. |

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|------------------|-------|----|----|--|
| CATECHOL-MELANIN | Fruit | -- | -- | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| CHOLINE | Leaf | -- | -- | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |

Activities (20)

| | |
|--------------------------------------|--|
| Antialzheimeran 5-16 g/man/day | |
| Antichoreic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Anticirrhotic 6,000 mg/man/day | |
| Anticystinuric | |
| Antidementia | |
| Antidiabetic | |
| Antidyskinetic 150-200 mg/kg/man/day | Martindale's 28th |
| Antihomocysteine | |
| Antimanic 15-30 g/man/day/orl | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antinociceptive | |
| Antistearototic | |
| Cardiodepressant | |
| Cerebrotonic | |
| Cholinergic | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Hepatoprotective | |
| Hypotensive | |
| Ileorelaxant | |

Memorigenic

Parasympathomimetic (1/1,000th acetylcholine)

Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp.

CHRYSOEROL-7-O-GLUCOSIDE

Leaf

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Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar.

Activities (1)

Anticomplementary

CINCHONIDINE

Leaf

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Activities (6)

Antiflu

Antiherpetic

Antimalarial 150-500 mg/man/4 x day

Antipyretic =ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp

Antiviral

Pesticide

CINCHONINE

Leaf

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Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar.

Activities (7)

Antiaggregant IC50=125-180 uM

Antimalarial LD50=152 (ipr rat) Merck 11th Edition

Antipyretic =ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp

MDR-Inhibitor 250 mg/kg igs rat Genne, P., Duchamp, O., Solary, E., Magnette, J., Belon, J. P., Chauffert, B. 1995. Cinchonine Per OS: Efficient Circumvention of P-Glycoprotein-Mediated Multidrug Resistance. Anticancer Drug Design, 10(2): 103-118.

MDR-Inhibitor 5 uM

PAF-Inhibitor IC50=125-180 uM

Pesticide

CINNAMIC-ACID

Fruit

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Activities (18)

Aldose-Reductase-Inhibitor 4 ug/ml (weak activity)

Ichikawa, K., et al. 1991. Isolation and Structure Determination of Aldose Reductase Inhibitors from Traditional Thai Medicine, and Syntheses of Their Derivatives. Sankyo Kenkyusho Nempo, 43: 99-110.

Allergenic

Anesthetic

Antibacterial

Martindale's 28th

Antiinflammatory

Economic & Medicinal Plant Research, 6: 235.

Antimutagenic

Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

Antispasmodic

Cancer-Preventive Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.

Choleretic

Dermatitogenic

Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

FLavor FEMA 4-40

Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

Fungicide

Herbicide

Laxative

Lipoxygenase-Inhibitor

Pesticide

Tyrosinase-Inhibitor ID50=700 uM

Vermifuge

CORNOSIDE

Fruit

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CRATAEGOLIC-ACID

Fruit

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List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

CYANIDIN-3-GLUCOSIDE

Fruit

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List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

CYANIDIN-3-MONOGLUCOSIDE

Pericarp

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Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants

| | | | | |
|---|---|----|----|--|
| CYANIDIN-3-RHAMNOSEYLGLUCOSYLGLUCOSIDE | Fruit | -- | -- | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| CYANIDIN-3-RUTINOSIDE | Fruit | -- | -- | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| Activities (1) | | | | |
| Antioxidant | | | | |
| D-1-ACETOXPINORESINOL-4'-BETA-D-GLUCOSIDE | Stem | -- | -- | * |
| D-1-ACETOXPINORESINOL-4'-O-METHYL-ETHER | Stem | -- | -- | Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar. |
| D-1-ACETOXPINORESINOL-4'-BETA-D-GLUCOSIDE | Stem | -- | -- | * |
| D-1-HYDROXPINORESINOL | Stem | -- | -- | Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar. |
| D-1-HYDROXPINORESINOL-4'-O-METHYL-ETHER | Stem | -- | -- | Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar. |
| D-ACETOXPINORESINOL | Stem | -- | -- | * |
| DEMETHYLOLEOEUROPEIN | Leaf | -- | -- | Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar. |
| DIHYDROCINCHONINE | Leaf | -- | -- | Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar. |
| DIHYDROXYPHENYLPROPANE | Leaf | -- | -- | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| ELENOLIC-ACID | Leaf | -- | -- | * |
| Activities (1) | | | | |
| Hypotensive | Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176) | | | |
| ELENOLIDE | Fruit | -- | -- | Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar. |
| Activities (1) | | | | |
| Hypotensive | Merck 11th Edition | | | |
| ERYTHRODIOL | Pericarp | -- | -- | Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar. |
| ESCULETIN | Stem | -- | -- | Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar. |
| Activities (30) | | | | |
| 5-Lipoxygenase-Inhibitor IC50=0.1-5 uM | | | | |
| Analgesic | | | | |
| Antiarrhythmic | | | | |
| Antiasthmatic? | | | | |
| Antibacterial | | | | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Anticapillary-Fragility | | | | Wichtl, M. 1984. Teedrogen. Ein Handbuch für Apotheker und Ärzte. Wissenschaftliche Verlagsgesellschaft mbH Stuttgart. 393 pp. |
| Antidysenteric | | | | HerbalGram No. 24, page 37. |
| Antiescherichic | | | | |
| Antiinflammatory IC50=0.1-5 uM | | | | |
| Antimutagenic | | | | Economic & Medicinal Plant Research, 6: 235. |
| Antipyretic | | | | |
| Antiseptic | | | | |
| Antistaphylococcic | | | | |
| Cancer-Preventive | | | | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Cardiodepressant | | | | |
| Choleretic | | | | Fitoterapia No.5-1986. |
| Cosmetic | | | | |
| Cytotoxic | | | | Mills, Simon and Bone, Kerry. 2000. Phytotherapy. Churchill Livingston, Edinburgh. |
| Dermatitigenic | | | | Wichtl, M. 1984. Teedrogen. Ein Handbuch für Apotheker und Ärzte. Wissenschaftliche Verlagsgesellschaft mbH Stuttgart. 393 pp. |
| Fungicide | | | | |

| | |
|----------------------------|---|
| Hypertensive | Chemical Constituents of Oriental Herbs (3 diff. books) |
| Lipoxygenase-Inhibitor | |
| Musculotropic | Wichtl, M. 1984. <i>Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft mbH Stuttgart.</i> 393 pp. |
| Myorelaxant | ANON. 1948-1976. <i>The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi.</i> 11 volumes. |
| Pesticide | |
| Sunscreen IC98=20 mg/l | Lazarova*, G., Kostova, I., Neychev, H. 1992. Photodynamic damage prevention by some hydroxycoumarins. <i>Fitoterapia</i> 64(2): 134-136, 1993. |
| Sunscreen IC100=50 mg/l | Lazarova*, G., Kostova, I., Neychev, H. 1992. Photodynamic damage prevention by some hydroxycoumarins. <i>Fitoterapia</i> 64(2): 134-136, 1993. |
| UV-Screen | Wichtl, M. 1984. <i>Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft mbH Stuttgart.</i> 393 pp. |
| Xanthine-Oxidase-Inhibitor | |
| IC52=10 uM | |

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|---------|------|----|----|--|
| ESCOLIN | Stem | -- | -- | Rizk, A.F.M. and Al-Nowaihi, A.S., <i>The Phytochemistry of the Horticultural Plants of Qatar</i> , Scientific and Applied Research Centre, University of Qatar. |
|---------|------|----|----|--|

Activities (29)

| | |
|-----------------------------|---|
| Analgesic | |
| AntiCVS | |
| Antiaging | |
| Antiallopecic | |
| Antiarthritic | |
| Anticapillary-Fragility | Bisset, N.G., ed. 1994. <i>Herbal Drugs and Phytopharmaceuticals.</i> CRC Press. Boca Raton, FL. 566 pp. |
| Anticellulitic | |
| Antidermatitic | |
| Antierythemic 4 mg oral man | |
| Antihemorrhoidal | |
| Antihistaminic | |
| Antiinflammatory | |
| Antioxidant | Jim Duke's personal files. |
| Antipanniculopathic | |
| Antipyretic | |
| Antiseborrheic | |
| Bacteristat | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp. |
| Cancer-Preventive | Jim Duke's personal files. |
| Cardiotonic | |
| Choleretic | Fitoterapia No.5-1986. |
| Cosmetic | |
| Diuretic | |
| Hypertensive | Chemical Constituents of Oriental Herbs (3 diff. books) |
| Lipoxygenase-Inhibitor | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine.</i> John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Microvasculokinetic | |
| Sunscreen IC39=20 mg/l | Lazarova*, G., Kostova, I., Neychev, H. 1992. Photodynamic damage prevention by some hydroxycoumarins. <i>Fitoterapia</i> 64(2): 134-136, 1993. |
| Sunscreen IC26=50 mg/l | |
| Toxic | |
| Vasoprotective | |

| | | | | |
|---------|------|----|----|---|
| ESTRONE | Seed | -- | -- | Chemical Constituents of Oriental Herbs (3 diff. books) |
|---------|------|----|----|---|

Activities (8)

| | |
|---------------------------------------|-------------------|
| Antiimpotence | Martindale's 28th |
| Antimenopausal 0.7-2.8 mg/day/orl/wmn | Martindale's 29th |
| Antiprostatadenoic | |
| Antivaginitic | |
| Aphrodisiac | |
| Carcinogenic | |
| Estrogenic 0.1-5 mg/woman/day | Martindale's 28th |
| Transdermal | |

| | | | | |
|-------|-------|----------|---------------|--|
| FAT | Twig | -- | 61000.0 | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |
| FAT | Seed | -- | 300000.0 0.18 | List, P.H. and Horhammer, L., <i>Hager's Handbuch der Pharmazeutischen Praxis</i> , Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| FAT | Leaf | -- | 73000.0 0.33 | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |
| FAT | Fruit | 127000.0 | 583000.0 3.81 | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |
| FIBER | Twig | -- | 289000.0 | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |

Activities (15)

| | |
|------------------------------|--|
| Angiotensin-Receptor-Blocker | |
| Antidiabetic | |
| Antihypertensive | |
| Antiobesity | |
| Antitumor | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiulcer | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Beta-Blocker | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Cardioprotective | |
| Diuretic | |
| Hypocholesterolemic | |
| Hypotensive 10 g/man/day/orl | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Hypouricemic | |
| Laxative | |
| Vasodilator | |

FIBER

Leaf

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177000.0 0.19

CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

Activities (15)

| | |
|------------------------------|--|
| Angiotensin-Receptor-Blocker | |
| Antidiabetic | |
| Antihypertensive | |
| Antiobesity | |
| Antitumor | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiulcer | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Beta-Blocker | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Cardioprotective | |
| Diuretic | |
| Hypocholesterolemic | |
| Hypotensive 10 g/man/day/orl | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Hypouricemic | |
| Laxative | |
| Vasodilator | |

FIBER

Fruit

13000.0

60000.0

-0.77

CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

Activities (15)

| | |
|------------------------------|--|
| Angiotensin-Receptor-Blocker | |
| Antidiabetic | |
| Antihypertensive | |
| Antiobesity | |
| Antitumor | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiulcer | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Beta-Blocker | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Cardioprotective | |
| Diuretic | |
| Hypocholesterolemic | |
| Hypotensive 10 g/man/day/orl | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Hypouricemic | |
| Laxative | |
| Vasodilator | |

FRUCTOSE

Fruit

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List, P.H. and Horhammer, L. Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Activities (8)

| | |
|---------------|--|
| Antialcoholic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antidiabetic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antihangover | |
| Antiketotic | Merck 11th Edition |
| Antinauseant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Laxative | |

Sweetener 2 x glucose Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants*. Taylor & Frost, London. 791 pp.

| | | | | |
|------------------------------------|-------|----|----|--|
| GALACTOSE | Fruit | -- | -- | List, P.H. and Horhammer, L., <i>Hager's Handbuch der Pharmazeutischen Praxis</i> , Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| Activities (1) | | | | |
| Sweetener 0.32 x sucrose | | | | Martindale's 28th |
| GALACTURONIC-ACID | | | | |
| GALACTURONIC-ACID | Fruit | -- | -- | List, P.H. and Horhammer, L., <i>Hager's Handbuch der Pharmazeutischen Praxis</i> , Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| GALLIC-ACID | Fruit | -- | -- | * |
| Activities (62) | | | | |
| ACE-Inhibitor IC50=7.7 mM/l | | | | |
| Analgesic | | | | |
| AntiHIV | | | | |
| AntiMRSA | | | | |
| Antiadenovirus | | | | Economic & Medicinal Plant Research, 5: 194. |
| Antiallergenic | | | | Dorsch, W., Wagner, H. New Antiasthmatic Drugs from Traditional Medicine? <i>Int Arch Allergy Appl Immunol</i> 94: 262-265, 1991. |
| Antianaphylactic | | | | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Antiangiogenic | | | | |
| Antiasthmatic | | | | Watt, J.M., and Breyer-Brandwijk, M.G. <i>The Medicinal and Poisonous Plants of Southern and Eastern Africa</i> . 1962. |
| Antibacterial MIC=1,000 ug/ml | | | | |
| Antibronchitic | | | | Dorsch, W., Wagner, H. New Antiasthmatic Drugs from Traditional Medicine? <i>Int Arch Allergy Appl Immunol</i> 94: 262-265, 1991. |
| Anticancer | | | | |
| Anticarcinomic ED50=3 | | | | |
| Antiescherichic | | | | |
| Antifibrinolytic | | | | Economic & Medicinal Plant Research, 1: 53. |
| Antiflu | | | | Economic & Medicinal Plant Research, 5: 194. |
| Antihepatotoxic | | | | Okuda, T., Yoshida, T., and Hatano, T. Antioxidant Effects of Tannins and Related Polyphenols. <i>Phenolic Compounds in Food and Their Effects on Health</i> , Ch.7 p.93. |
| Antiperherptic EC50=>10 ug/ml | | | | |
| Antiinflammatory | | | | Kroes, B.H., et al. 1991. Anti-Inflammatory Activity of Gallic Acid. <i>Planta Medica</i> , 58(6): 499. |
| Antileishmanic EC50=4.4 ug/ml | | | | |
| Antimutagenic | | | | Economic & Medicinal Plant Research, 6: 235. |
| Antinitrosaminic | | | | |
| Antioxidant IC44=33 ppm | | | | |
| Antioxidant 7 x quercetin | | | | |
| Antioxidant 2/3 BHA | | | | |
| Antiperiodontic 10 ug/ml | | | | |
| Antiperoxidant IC50=69 uM | | | | |
| Antipolio | | | | Economic & Medicinal Plant Research, 5: 194. |
| Antiproteolytic 10 ug/ml | | | | |
| Antiradicular 7 x quercetin | | | | |
| Antiradicular IC50=4.9 uM | | | | |
| Antiseptic | | | | Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| Antistaphylococcal MIC=1,000 ug/ml | | | | |
| Antitumor | | | | |
| Antitumor-Promoter | | | | |
| Antiviral | | | | |
| Apoptotic | | | | |
| Astringent | | | | Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| Bacteristat | | | | Lamikanra, A., Ogundaini, A.O., and Ogungbamila*, F.O. Antibacterial Constituents of Alchornea cordifolia Leaves. <i>Phytotherapy Research</i> 4(5): 198. |
| Bronchodilator | | | | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Cancer-Preventive | | | | Stitt, P. A. <i>Why George Should Eat Broccoli</i> . Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Candidicide | | | | |
| Carcinogenic | | | | |
| Choleretic | | | | Jeffery B. Harborne and H. Baxter. eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp |

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|---------------------------------------|--|
| Cyclooxygenase-Inhibitor | |
| Cytotoxic 500 uM | |
| Floral-Inhibitor | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Gram(+)icide MIC=1,000 ug/ml | |
| Gram(-)icide MIC=1,000 ug/ml | |
| Hemostat | |
| Hepatoprotective | Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp. |
| Immunomodulator | |
| Immunostimulant | McKenna, D. J., Hughes, K., and Jones, K. 2000. Green Tea Monograph. Alternative Therapies, 6(3): 61-82. |
| Immunosuppressant | |
| Insulin-Sparing | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Myorelaxant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| NO-Inhibitor IC-26=250 uM | |
| Nephrotoxic | Martindale's 29th |
| Pesticide | |
| Styptic | |
| Topoisomerase-I-Inhibitor | Hamada, S. I., Kataoka, T., Woo, J. T., Yamada, A., Yoshida, T., Nishimura, T., Otake, N., Nagai, K. 1997. Immunosuppressive Effects by Gallic Acid and Chebulagic Acid on CTL-Mediated Cytotoxicity. <i>Biol Pharm Bull</i> , 20: 1017-1019. |
| Xanthine-Oxidase-Inhibitor IC50=24 uM | Hatano, T., Yasuhara, T., Yoshihara, R., Agata, I., Noro, T., and Okuda, T. 1989. Effects of Interaction of Tannins with Co-existing Substances.VII. Inhibitory Effects of Tannins Related Polyphenols on Xanthine Oxidase. <i>Chem. Pharm. Bull.</i> 38(5): 1224-1229 |

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|------------------|-----|----|------|-------|---|
| GAMMA-TOCOPHEROL | Oil | -- | 13.0 | -1.29 | * |
|------------------|-----|----|------|-------|---|

Activities (14)

| | |
|--------------------------|--|
| AntiCRP | |
| Antiatherosclerotic | |
| Anticancer | |
| Antiinflammatory | |
| Antioxidant 10-15 ug/g | |
| Antioxidant IC43=10 uM | |
| Antiprostaglandin | |
| Antitumor | |
| Cardioprotective | |
| Cyclooxygenase-Inhibitor | |
| Hypocholesterolemic | |
| NO-Inhibitor | |
| Natriuretic | |
| PKC-Inhibitor | |

| | | | | |
|---------|-------|----|----|---|
| GLUCOSE | Fruit | -- | -- | List, P.H. and Horhammer, L. <i>Hager's Handbuch der Pharmazeutischen Praxis</i> , Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
|---------|-------|----|----|---|

Activities (7)

| | |
|-------------------|--|
| Acetylcholinergic | |
| Antiedemic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Ant hepatotoxic | Merck 11th Edition |
| Antiketotic | Merck 11th Edition |
| Antivaricose | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Hyperglycemic | Merck 11th Edition |
| Memory-Enhancer | Science News, 138: 189, 1990. |

| | | | | |
|-------------|-------|----|----|---|
| HALLERIDONE | Fruit | -- | -- | * |
|-------------|-------|----|----|---|

| | | | | |
|----------------|-------|----|----|---|
| HYDROXYTYROSOL | Fruit | -- | -- | * |
|----------------|-------|----|----|---|

| | | | | | |
|------|-------|------|------|-------|---|
| IRON | Fruit | 16.0 | 73.0 | -0.24 | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |
|------|-------|------|------|-------|---|

Activities (6)

| | |
|------------------------------------|---|
| Antiakathisic | Martindale's 29th |
| Antianemic | Martindale's 29th |
| Anticancer | |
| Anticheilitic | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp. |
| Antimenorrhagic 100 mg/day/wmn/orl | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Basty College Publications, Seattle, Washington (Looseleaf). |
| Prooxidant | |

Activities (75)

11B-HSD-Inhibitor

5-Lipoxygenase-Inhibitor IC₅₀ (uM)=20

Aldose-Reductase-Inhibitor 100 uM

Oliveira, T. T., Nagem, T. J., Miranda, L. C. G., Paula, V. F., Teixeira, M. A. 1997. Inhibitory Action on Aldose Reductase by Soybean Flavonoids. *J Braz Chem Soc*, 8(3): 211-213.Antiaflatoxin IC₅₀=8.73 uMAntiaflatoxin IC₅₀=3.28 ppm

Antiaggregant 30 uM

Antiallergic

Antibacterial 20 ug/ml

Anticancer

Antifertility 250 mg/kg/day/60 days/oral rat

Kumar, P., Dixit*, V.P., and Khanna, P. Antifertility Studies of Kaempferol: Isolation and Identification from Tissue Culture of some Medicinally Important Plant Species. *Plantes medicinales et phytotherapie*, 23: 193-201, 1989.

Antigingivitic 20 ug/ml

Antiherpetic 23-92 ug/ml

Amoros, M., Simoes, C.M.O., Girre, L., et al. Synergistic Effect Of Flavones And Flavonols Against Herpes Simplex Virus Type 1 In Cell Culture. Comparison With The Antiviral Activity Of Propolis. *J. of Natural Products* 55(12):1732-1740, 1992.

Antihistaminic

Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

Antiimplantation

Antiinflammatory 20 mg/kg

Antiinflammatory 200 mg/kg ipr rat

Antileukemic IC₅₀=3.1 ug/ml

Life Sciences 55: 1061.

Antilymphocytic

Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants*. Taylor & Frost, London. 791 pp.Antimutagenic ID₅₀=10-40 nM

Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp.

Antioxidant IC₅₀=40 uM

Antioxidant 3/4 quercetin

Antioxidant IC₅₀=1.2 ug/ml

Antiperiodontic 20 ug/ml

Antiplaque 20 ug/ml

Antiradicular 7 x quercetin

Antiseptic 20 ug/ml

Antiserotonin 200 mg/kg ipr rat

Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

Antispasmodic

Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

Antistaphylococcic

Antitumor

Antitumor-Promoter

Yasukawa, K., Takido, M., Takeuchi, M., Sato, Y., Nitta, K., and Nakagawa, S. 1989. Inhibitory Effects of Flavonol Glycosides on 12-O-Tetradecanoylphorbol-13-acetate-Induced Tumor Promotion. *Chem. Pharm. Bull.* 38(3): 774-776, 1990.

Antiulcer 50-200 mg/kg ipr rat

Antiviral 23-92 ug/ml

Apoptotic 60 uM

Aromatase-Inhibitor

Journal of Medicinal Food 2: 235.1999.

IC₁₂=1 uM/l

COX-2-Inhibitor

Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.

Cancer-Preventive

Hutchings, A, Scott, AH, Lewis, G, and Cunningham, A. 1996. Zulu Medicinal Plants. An inventory. University of Natal Press, Pietermaritzburg. 450 pp.

Choleretic

Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Copper-Chelator

Cyclooxygenase-Inhibitor IC₅₀ (uM) =20

Cytotoxic

Lawrence Review of Natural Products, Dec-90.

Diaphoretic?

Diuretic

Estrogenic EC₅₀=0.1-25 uM/l

Journal of Medicinal Food 2: 227.1999.

Estrogenic EC₅₀=0.56 uM

Fungicide 20 ug/ml Father Nature's Farmacy: The aggregate of all these three-letter citations.

HIV-RT-Inhibitor IC₅₀=50-150 ug/mlGarcia, J., Morin,* C., Nyasse, B., Sondengam, B-L., Tchouankeu, J-C., and Tsamo, E. Complete Structural Assignments Of An Ergosterol Derivative From Entandrophragma utile. *Journal of Natural Products*, 54(1): 136-142, 1991.Hepatoprotective IC₅₀=5.46 uMHepatoprotective IC₅₀=1.30 ppm

| | | | | | |
|---|---|--|--|--|--|
| ICAM-1-Inhibitor | | | | | |
| Inotropic | | | | | |
| Iodothyronine-Deiodinase-Inhibitor | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| JNK-Inhibitor | | | | | |
| Lipoxygenase-Inhibitor | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| MAO-Inhibitor | | | | | |
| Mutagenic | | | | | |
| NO-Inhibitor IC50=13.9 uM | | | | | |
| Natriuretic | | | | | |
| Neuroprotective | | | | | |
| PAF-Inhibitor | | | | | |
| Pesticide | | | | | |
| Protisticide | Meckes, M., Calzada, F., Tapia-Contreras, A., Cedillo-Rivera, R. 1999. Antiprotozoal Properties of <i>Helianthemum glomeratum</i> . <i>Phytotherapy Research</i> , 13(2): 102-105. | | | | |
| Quinone-Reductase-Inducer 3 uM | | | | | |
| TNF-alpha-Inhibitor IC50=3.99 uM | | | | | |
| Teratologic | | | | | |
| Topoisomerase-I-Inhibitor | Santti, R., Makela, S., Strauss, L., Korman, J., Kostian, M. L. 1998. Phytoestrogens: Potential Endocrine Disruptors in Males. <i>Toxicol Ind Health</i> , 14: 223-237. | | | | |
| Topoisomerase-II-Inhibitor IC50=8.1 ug/ml | Constantinou, A., Mehta, R., Runyan, C., Rao, K., Vaughan, A., Moon, R. 1995. Flavonoids as DNA Topoisomerase Antagonists and Poisons: Structure-Activity Relationships. <i>J Natural Products</i> , 58: 217-225. | | | | |
| Tyrosinase-Inhibitor ID50=230 uM | | | | | |
| Uterotrophic EC50=0.1-25 uM/l | Journal of Medicinal Food 2: 227.1999. | | | | |
| Vasodilator | | | | | |
| cAMP-Phosphodiesterase-Inhibitor | | | | | |
| iNOS-Inhibitor IC50=<15 uM | | | | | |
| iNOS-Inhibitor IC50=13.9 uM | | | | | |

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|---------------|---------------------|---------|---------|------|--|
| KILOCALORIES | Fruit | 1160.0 | 5320.0 | 2.52 | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |
| L-OLIVIL | Resin, Exudate, Sap | -- | -- | | Chemical Constituents of Oriental Herbs (3 diff. books) |
| LIGUSTROLIDE | Fruit | -- | -- | | Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar. |
| LIGUSTROSIDE | Leaf | -- | -- | * | |
| LINOLEIC-ACID | Fruit | 10500.0 | 28000.0 | 0.04 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |

Activities (27)

| | | | | | |
|-------------------------------|--|--|--|--|--|
| 5-Alpha-Reductase-Inhibitor | | | | | |
| AntiMS | Economic & Medicinal Plant Research, 6: 189. | | | | |
| Antiacne | | | | | |
| Antialopeptic | | | | | |
| Antianaphylactic | Economic & Medicinal Plant Research, 6: 189. | | | | |
| Antiandrogenic | | | | | |
| Antiarteriosclerotic | | | | | |
| Antiarthritic | Economic & Medicinal Plant Research, 6: 189. | | | | |
| Anticorony | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Antieczemic | Economic & Medicinal Plant Research, 6: 189. | | | | |
| Antifibrinolytic | Economic & Medicinal Plant Research, 1: 53. | | | | |
| Antigranular | | | | | |
| Antihistaminic | Economic & Medicinal Plant Research, 6: 189. | | | | |
| Antiinflammatory IC50=31 uM | | | | | |
| Antileukotriene-D4 IC50=31 uM | | | | | |
| Antimenorrrhagic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Antiprostatic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. | | | | |
| Carcinogenic | Science News, 146: 421. | | | | |
| Comedolytic | | | | | |

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|---|--|
| Hypocholesterolemic | Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.) |
| Immunomodulator | Economic & Medicinal Plant Research, 6: 189. |
| Insectifuge | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Metastatic | Science News, 146: 421. |
| Nematicide | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. |
| Propecic | |
| LUTEOLIN | Leaf -- -- |
| | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| Activities (78) | |
| Aldose-Reductase-Inhibitor EC=3 ppm | Shin*, K.H., Chung, M.S., Chae, Y.J., Yoon, K.Y., Cho, T.S. 1992. A survey for aldose reductase inhibition of herbal medicines. <i>Fitoterapia</i> 64(2): 130, 1993. |
| Aldose-Reductase-Inhibitor IC50=0.45 uM rat | |
| AntiHIV | |
| Antiallergic | |
| Antiangiogenic IC60-75=10 ¹ uM | |
| Antiatherogenic | |
| Antibacterial MIC=500 ug/ml | Planta Medica, 57: A43, 1991. |
| Anticarcinogenic | |
| Anticarcinomic | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46. |
| Anticataract EC=3 ppm | Shin*, K.H., Chung, M.S., Chae, Y.J., Yoon, K.Y., Cho, T.S. 1992. A survey for aldose reductase inhibition of herbal medicines. <i>Fitoterapia</i> 64(2): 130, 1993. |
| Anticomplementary | |
| Antidermatic | Bisset, N.G., ed. 1994. <i>Herbal Drugs and Phytopharmaceuticals</i> . CRC Press. Boca Raton, FL. 566 pp. |
| Antiestrogenic | |
| Antifeedant IC52=<1,000 ppm diet | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Antiherpetic 11-23 ug/ml | |
| Antihistaminic <10-15 uM | |
| Antiinflammatory #NAME? | Wichtl, M. 1984. <i>Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart</i> . 393 pp. |
| Antileukemic 20-50 uM | |
| Antilymphomeric | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46. |
| Antimelanomic | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46. |
| Antimutagenic ID50=2-5 nM | |
| Antimutagenic ID50=0.44 ug/ml | |
| Antinociceptive | |
| Antioxidant IC50=10 uM | |
| Antipolio | Economic & Medicinal Plant Research, 5: 197. |
| Antiproliferant | |
| Antispasmodic | Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| Antitumor 1-50 uM | |
| Antitumor (Colon) | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46. |
| Antitumor (Kidney) | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46. |
| Antitumor (Lung) | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46. |
| Antitumor (Ovary) | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46. |
| Antitumor (Pancreas) | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46. |
| Antitumor (Skin) 20 uM | |
| Antitumor (Stomach) | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46. |
| Antitumor (Thyroid) 12-50 uM | |
| Antitumor (brain) | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46. |
| Antitussive | |
| Antiviral 11-23 ug/ml | |
| Aphidifuge | |
| Apoptotic 12-50 uM | |
| Aromatase-Inhibitor IC35=1 uM/l | Journal of Medicinal Food 2: 235.1999. |
| Beta-Glucuronidase-Inhibitor IC50=~40 uM | |
| Calcium-Antagonist IC50=1.2 uM rbt | |

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|--|---|
| Chemopreventive | |
| Choleretic | |
| Cytotoxic 1-50 uM | |
| Deiodinase-Inhibitor | Jim Duke's personal files. |
| Differentiator IC>40=40 uM | |
| Diuretic | Jim Duke's personal files. |
| Estrogenic 58% genistein | |
| Hepatoprotective | |
| Hyaluronidase-Inhibitor IC50+=100-250 uM | |
| Hypocholesterolemic | |
| ICAM-1-Inhibitor | |
| IKK-Inhibitor | |
| Iodothyronine-Deiodinase-Inhibitor | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Lipoxygenase-Inhibitor | |
| MAPK-Inhibitor | |
| MMP-9-Inhibitor 20 uM | |
| Metalloproteinase-Inhibitor | |
| Myorelaxant | |
| NEP-Inhibitor IC50=>42 uM | |
| NF-kB-Inhibitor | |
| NO-Inhibitor | |
| PTK-Inhibitor 10-100 uM | |
| Pesticide | |
| Proliferant | |
| Prostaglandin-Synthetase-Inhibitor | |
| Protein-Kinase-C-Inhibitor IC70=50 uM | |
| Succinoxidase-Inhibitor | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| TNF-alpha-Inhibitor IC50=14.44 uM | |
| Topoisomerase-I-Inhibitor | Santti, R., Makela, S., Strauss, L., Korman, J., Kostian, M. L. 1998. Phytoestrogens: Potential Endocrine Disruptors in Males. <i>Toxicol Ind Health</i> , 14: 223-237. |
| VEGF-Inhibitor IC50=2-7 uM | |
| Vasodilator | |
| Xanthine-Oxidase-Inhibitor IC50=0.11 ug/ml | Chem. & Pharm. Bull. 38: 1772. |
| iNOS-Inhibitor | |

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|-------------------------|------|----|----|--|
| LUTEOLIN-4'-O-GLUCOSIDE | Leaf | -- | -- | Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar. |
|-------------------------|------|----|----|--|

Activities (2)

Anticomplementary

Antioxidant 22.59 U/ml

| | | | | |
|------------------------|-------|----|----|--|
| LUTEOLIN-5-O-GLUCOSIDE | Fruit | -- | -- | Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar. |
|------------------------|-------|----|----|--|

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|------------------------|------|----|----|--|
| LUTEOLIN-7-O-GLUCOSIDE | Leaf | -- | -- | Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar. |
|------------------------|------|----|----|--|

Activities (2)

Anticomplementary

Antihyperthyroid

| | | | | |
|------------------------|------|----|----|--|
| LUTEOLINTETRAGLUCOSIDE | Leaf | -- | -- | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
|------------------------|------|----|----|--|

| | | | | |
|----------|------|----|----|--|
| MANNITOL | Leaf | -- | -- | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
|----------|------|----|----|--|

Activities (18)

Allergenic Martindale's 29th

Analgesic

Anthelmintic ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.

AntiReye's Martindale's 29th

Antiglaucomic Martindale's 28th

| | | | | |
|---------------|--|--|--|--|
| Antimutagenic | | | | |
| Antinephritic | Martindale's 29th | | | |
| Antioxidant | Jim Duke's personal files. | | | |
| Antiradicular | | | | |
| Antispasmodic | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. | | | |
| Diuretic | Merck 11th Edition | | | |
| Emetic | Martindale's 28th | | | |
| Flatugenic | Martindale's 29th | | | |
| Laxative | | | | |
| Nephrotoxic | Martindale's 29th | | | |
| Pesticide | | | | |
| Sweetener | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | |

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|---------------|-----------|----|----|--|
| MASLINIC-ACID | Hull Husk | -- | -- | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
|---------------|-----------|----|----|--|

Activities (6)

| | | | | |
|-----------------------------------|--|--|--|--------------------------------------|
| AntiHIV IC100=18 ug/ml | | | | |
| Antiedemic | | | | |
| Antihistaminic | | | | |
| Antiinflammatory | | | | Chem & Pharm. Bull., 34: 2164, 1986. |
| Antiviral IC100=18 ug/ml | | | | |
| Protease-Inhibitor IC100=18 ug/ml | | | | |

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|---------------|---------|----|----|---|
| MASLINIC-ACID | Petiole | -- | -- | * |
|---------------|---------|----|----|---|

Activities (6)

| | | | | |
|-----------------------------------|--|--|--|--------------------------------------|
| AntiHIV IC100=18 ug/ml | | | | |
| Antiedemic | | | | |
| Antihistaminic | | | | |
| Antiinflammatory | | | | Chem & Pharm. Bull., 34: 2164, 1986. |
| Antiviral IC100=18 ug/ml | | | | |
| Protease-Inhibitor IC100=18 ug/ml | | | | |

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|-------------------------|------|----|----|---|
| METHYL-DELTA-MASLINEATE | Leaf | -- | -- | Chemical Constituents of Oriental Herbs (3 diff. books) |
|-------------------------|------|----|----|---|

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|---------------|-------|-------|-------|-------|--|
| MYRISTIC-ACID | Fruit | 300.0 | 800.0 | -0.23 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
|---------------|-------|-------|-------|-------|--|

Activities (6)

| | | | | |
|----------------------|--|--|--|--|
| Antioxidant IC71=60 | | | | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. | | | |
| Cosmetic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | |
| Hypercholesterolemic | Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.) | | | |
| Lubricant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | |
| Nematicide | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. | | | |

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|-----------|------|----|----|---|
| NUZHENIDE | Seed | -- | -- | * |
|-----------|------|----|----|---|

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|-----------------|-------|----|----|---|
| O-COUMARIC-ACID | Fruit | -- | -- | * |
|-----------------|-------|----|----|---|

Activities (4)

| | | | | |
|---------------|--|--|--|---------------------------|
| Allelopathic | | | | |
| Antibacterial | | | | Pharmazie, 46: 156, 1991. |
| Fungicide | | | | Pharmazie, 46: 156, 1991. |
| Pesticide | | | | |

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|----------------|-----------|----|----|--|
| OLEANOLIC-ACID | Hull Husk | -- | -- | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
|----------------|-----------|----|----|--|

Activities (64)

| | | | | |
|----------------------------|---|--|--|--|
| Abortifacient | | | | |
| AntiHIV IC50=21.8 ug/ml | | | | |
| AntiHIV EC50=1.7 ug/ml | Kashiwada, Y., et. al. 1998. Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. J. Nat. Prod., 61 (9): 1090-1095. | | | |
| AntiPGE2 IC50=24 uM | | | | |
| AntiTGF-beta IC50=19-24 uM | | | | |

| | |
|---|--|
| Antiarrhythmic | 40 mg/kg |
| Antithrombotic | |
| Antibacterial | MIC=625-1,250 ug/ml |
| Anticarcinomic | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46. |
| Anticariogenic | Leung, A. Y. and Foster, S. 1995. <i>Encyclopedia of Common Natural Ingredients</i> 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| Anticomplement IC40-50 0.01 mM/l gpg | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. <i>Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D)</i> , 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. |
| Anticomplement IC80-90 0.05 mM/l gpg | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. <i>Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D)</i> , 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. |
| Antiedemic IC36=40 mg/kg ipr rat | |
| Antifertility | |
| Antigingivitic MIC=625-1,250 ug/ml | |
| Antihepatotoxic | |
| Antihyperlipidemic | |
| Antiinflammatory 40 mg/kg ipr | Aquino, R., De Feo, V., De Simone, F., Pizza, C.* and Cirino, G. Plant Metabolites. New Compounds And Anti-Inflammatory Activity Of Uncaria tomentosa. <i>Journal of Natural Products</i> , 54(2): 453-459, 1991. |
| Antiischemic 40 mg/kg | |
| Antileukemic | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46. |
| Antileukotriene IC50=17 uM | |
| Antimalarial IC50=70-89 ug/ml | |
| Antinephritic IC50=19-24 uM | |
| Antioxidant | Balanehru, S. and Nagarajan, B. 1992. Intervention of Adriamycin Induced Free Radical Damage. <i>Biochemistry International</i> 28(4): 735-744, 1992. |
| Antioxidant IC46=10 uM | |
| Antiperiodontic MIC=625-1,250 ug/ml | |
| Antiperoxidant IC30=200 ug/ml | |
| Antiplaque MIC=625-1,250 ug/ml | |
| Antiplasmodial IC50=70-89 ug/ml | |
| Antisarcotic | |
| Antiseptic MIC=625-1,250 ug/ml | |
| Antitumor | |
| Antitumor (Breast) | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46. |
| Antitumor (Colon) | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46. |
| Antitumor (Kidney) | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46. |
| Antitumor (Lung) | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46. |
| Antitumor (Pancreas) | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46. |
| Antiulcer >carbenoxolone | |
| Antiviral EC50=1.7 ug/ml | Kashiwada, Y., et. al. 1998. Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. <i>J. Nat. Prod.</i> , 61 (9): 1090-1095. |
| Antiviral IC50=21.8 ug/ml | Kashiwada, Y., et. al. 1998. Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. <i>J. Nat. Prod.</i> , 61 (9): 1090-1095. |
| Aromatase-Inhibitor | |
| Beta-Blocker | |
| Beta-Glucuronidase-Inhibitor ~100 mg/kg | |
| COX-2-Inhibitor IC50=295 uM/ | |
| COX-2-Inhibitor | Ringborn, T., Seguar, L., Noreen, Y., Perera, P., Bohlin, L. 1998. Ursolic Acid from <i>Plantago major</i> , a Selective Inhibitor of Cyclooxygenase-2 Catalyzed Prostaglandin Biosynthesis. <i>J. Nat. Prod.</i> , 61(10): 1212-1215. |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Cardioprotective 40 mg/kg | |
| Cardiotonic | |
| Cyclooxygenase-Inhibitor | |
| Diuretic | Leung, A. Y. and Foster, S. 1995. <i>Encyclopedia of Common Natural Ingredients</i> 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| Elastase-Inhibitor IC50=~15 uM | |
| Hepatoprotective | Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 211. |
| Hypolipemic | |
| Hypotensive | |
| Immunomodulator | |
| Leucocytogenic | |
| NF-kB-Inhibitor | |

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|---|--|
| Piscicide | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| Prostaglandin-Synthesis-Inhibitor igs mus | |
| Sedative | |
| Uterotonic | |
| Vasopressor | |

| | | | | |
|--------------------------------------|--|----|----|---|
| OLEANOLIC-ACID | Petiole | -- | -- | * |
| Activities (64) | | | | |
| Abortifacient | | | | |
| AntiHIV IC50=21.8 ug/ml | | | | |
| AntiHIV EC50=1.7 ug/ml | Kashiwada, Y., et. al. 1998. Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. J. Nat. Prod., 61 (9): 1090-1095. | | | |
| AntiPGE2 IC50=24 uM | | | | |
| AntiTGF-beta IC50=19-24 uM | | | | |
| Antiallergic | | | | |
| Antiarrhythmic 40 mg/kg | | | | |
| Antiatherosclerotic | | | | |
| Antibacterial MIC=625-1,250 ug/ml | | | | |
| Anticarcinomic | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46. | | | |
| Anticariogenic | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. | | | |
| Anticomplement IC40-50 0.01 mM/l gpg | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. | | | |
| Anticomplement IC80-90 0.05 mM/l gpg | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. | | | |
| Antiedemic IC36=40 mg/kg ipr rat | | | | |
| Antifertility | | | | |
| Antigingivitic MIC=625-1,250 ug/ml | | | | |
| Antihepatotoxic | | | | |
| Antihyperlipidemic | | | | |
| Antiinflammatory 40 mg/kg ipr | Aquino, R., De Feo, V., De Simone, F., Pizza, C.*, and Cirino, G. Plant Metabolites. New Compounds And Anti-Inflammatory Activity Of Uncaria tomentosa. Journal of Natural Products, 54(2): 453-459, 1991. | | | |
| Antiischemic 40 mg/kg | | | | |
| Antileukemic | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46. | | | |
| Antileukotriene IC50=17 uM | | | | |
| Antimalarial IC50=70-89 ug/ml | | | | |
| Antinephritic IC50=19-24 uM | | | | |
| Antioxidant | Balanehru, S. and Nagarajan, B. 1992. Intervention of Adriamycin Induced Free Radical Damage. Biochemistry International 28(4): 735-744, 1992. | | | |
| Antioxidant IC46=10 uM | | | | |
| Antiperiodontic MIC=625-1,250 ug/ml | | | | |
| Antiperioxidant IC30=200 ug/ml | | | | |
| Antiplaque MIC=625-1,250 ug/ml | | | | |
| Antiplasmodial IC50=70-89 ug/ml | | | | |
| Antisarcomic | | | | |
| Antiseptic MIC=625-1,250 ug/ml | | | | |
| Antitumor | | | | |
| Antitumor (Breast) | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46. | | | |
| Antitumor (Colon) | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46. | | | |
| Antitumor (Kidney) | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46. | | | |
| Antitumor (Lung) | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46. | | | |
| Antitumor (Pancreas) | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46. | | | |
| Antiulcer >carbenoxolone | | | | |
| Antiviral EC50=1.7 ug/ml | Kashiwada, Y., et. al. 1998. Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. J. Nat. Prod., 61 (9): 1090-1095. | | | |
| Antiviral IC50=21.8 ug/ml | Kashiwada, Y., et. al. 1998. Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. J. Nat. Prod., 61 (9): 1090-1095. | | | |
| Aromatase-Inhibitor | | | | |
| Beta-Blocker | | | | |

| | |
|---|---|
| inhibitor ~100 mg/kg | |
| COX-2-Inhibitor IC50=295 uM/ | |
| COX-2-Inhibitor | Ringbom, T., Seguar, L., Noreen, Y., Perera, P., Bohlin, L. 1998. Ursolic Acid from <i>Plantago major</i> , a Selective Inhibitor of Cyclooxygenase-2 Catalyzed Prostaglandin Biosynthesis. <i>J. Nat. Prod.</i> , 61(10): 1212-1215. |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Cardioprotective 40 mg/kg | |
| Cardiotonic | |
| Cyclooxygenase-Inhibitor | |
| Diuretic | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| Elastase-Inhibitor IC50=~15 uM | |
| Hepatoprotective | Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 211. |
| Hypolipemic | |
| Hypotensive | |
| Immunomodulator | |
| Leucocytogenic | |
| NF-kB-Inhibitor | |
| Phagocytotic | |
| Piscicide | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| Prostaglandin-Synthesis-Inhibitor igs mus | |
| Sedative | |
| Uterotonic | |
| Vasopressor | |

| | | | | | |
|------------|-------|----------|----------|------|--|
| OLEIC-ACID | Fruit | 122400.0 | 326400.0 | 2.03 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
|------------|-------|----------|----------|------|--|

Activities (18)

| | |
|-------------------------------|--|
| 5-Alpha-Reductase-Inhibitor | |
| Allergenic | |
| Alpha-Reductase-Inhibitor | |
| Anemiagenic | |
| Antialopeptic | |
| Antiandrogenic | |
| Antiinflammatory IC50=21 uM | |
| Antileukotriene-D4 IC50=21 uM | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Choleretic 5 ml/man | |
| Dermatitigenic | |
| FLavor FEMA 1-30 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Hypocholesterolemic | Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press, Boca Raton, FL. 233 pp.) |
| Insectifuge | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Irritant | Merck 11th Edition |
| Percutaneostimulant | Seki, T., Toeda, C., Kawaguchi, T., Juni, K., Sugibayashi, K., and Morimoto, Y. 1990. Enhanced Transdermal Delivery of Zidovudine in Rats and Human Skin. <i>Chem. Pharm. Bull.</i> 38(11): 3086-3089, 1990. |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Propeptic | |

| | | | | |
|----------|------|----|----|--|
| OLEOSIDE | Leaf | -- | -- | Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar. |
|----------|------|----|----|--|

Activities (1)

ACE-Inhibitor 0.33 mg/ml (weak activity, 70% inhibition)

| | | | | |
|-------------------------|-----------|----|----|--|
| OLEOSIDE-7-METHYL-ESTER | Bark | -- | -- | Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar. |
| OLEUROPEIC-ACID | Root Bark | -- | -- | Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar. |

OLEUROPEIN

Plant -- -- *

Activities (9)

ACE-Inhibitor 0.33 mg/ml (weak activity, 8% inhibition)

| | |
|------------------|---|
| Antiarrhythmic | Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176) |
| Antihypertensive | Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp. |

| | | |
|------------------|--|--|
| Antispasmodic | | Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176) |
| Bacteristat | | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Coronary-Dilator | | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Hypotensive | | Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176) |
| Vasodilator | | |

| | | | | |
|------------|------|----|----|---|
| OLEUROPEIN | Leaf | -- | -- | * |
|------------|------|----|----|---|

Activities (9)

| | | | | |
|---|--|--|--|--|
| ACE-Inhibitor 0.33 mg/ml (weak activity, 8% inhibition) | | | | |
| Antiarrhythmic | | | Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176) | |
| Antihypertensive | | | Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp. | |
| Antioxidant IC49=10 uM | | | | |
| Antispasmodic | | | Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176) | |
| Bacteristat | | | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | |
| Coronary-Dilator | | | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | |
| Hypotensive | | | Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176) | |
| Vasodilator | | | | |

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|------------|------|----|----|---|
| OLEUROSIDE | Leaf | -- | -- | * |
|------------|------|----|----|---|

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|-----------------------|-------|----|----|--|
| OLIVIN | Leaf | -- | -- | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| OLIVIN-4'-DIGLUCOSIDE | Leaf | -- | -- | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| P-COUMARIC-ACID | Fruit | -- | -- | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |

Activities (25)

| | | | | |
|--|--|--|--|---|
| Aldose-Reductase-Inhibitor 4 ug/ml (weak activity) | | | | Ichikawa, K., et al. 1991. Isolation and Structure Determination of Aldose Reductase Inhibitors from Traditional Thai Medicine, and Syntheses of Their Derivatives. <i>Sankyo Kenkyusho Nempo</i> , 43: 99-110. |
| Allelopathic | | | | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antibacterial | | | | Pharmazie, 46: 156, 1991. |
| Anticlastogen | | | | |
| Antifertility | | | | |
| Antihepatotoxic | | | | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antileukemic IC50=25-56 ug/ml | | | | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46. |
| Antinitrosaminic | | | | Joseph, J., Nadeau, D. and Underwood, A. 2001. <i>The Color Code</i> . Hyperion, NY. |
| Antioxidant IC24=30 ppm | | | | |
| Antioxidant 1/3 BHA | | | | |
| Antiperoxidant IC50=>100 uM | | | | Planta Medica, 57: A54, 1991. |
| Antiseptic | | | | |
| Antispasmodic | | | | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals</i> . The Pharmaceutical Press, London. 296pp. |
| Antitumor | | | | |
| Cancer-Preventive | | | | |
| Chemopreventive | | | | |
| Choleretic | | | | |
| Cytotoxic | | | | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Diaphoretic? | | | | Lawrence Review of Natural Products, Dec-90. |
| Fungicide | | | | Nigg, H.N. and Seigler, D.S., eds. 1992. <i>Phytochemical Resources for Medicine and Agriculture</i> . Plenum Press, New York. 445 pp. |
| Lipoxygenase-Inhibitor IC11=5 mM | | | | Oszmianski, J. and Lee, C.Y. 1990. Inhibitory Effect of Phenolics on Carotene Bleaching in Vegetables. <i>J. Agric. Food Chem</i> . 38: 688-690. |
| Pesticide | | | | |
| Prostaglandinogenic | | | | |
| Prostaglandin-Synthesis-Inhibitor | | | | |
| Tyrosinase-Inhibitor ID50=3,650 uM | | | | |

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|------------------------|-------|----|----|---|
| P-HYDROXY-BENZOIC-ACID | Fruit | -- | -- | * |
|------------------------|-------|----|----|---|

Activities (13)

| | | | | |
|---------------|--|--|--|--|
| Antibacterial | | | | |
| Antimutagenic | | | Economic & Medicinal Plant Research, 6: 235. | |

| | | | | | |
|--------------------------|--|--|--|--|--|
| Antiradicular | | | | | |
| Antisickling 10.5 ug/ml | | | | | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. | | | | |
| Fungistat EC50=607 ug/ml | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. | | | | |
| Immunosuppressant | | | | | |
| Pesticide | | | | | |
| Phytoalexin | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. | | | | |
| Prostaglandigenic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Secretagogue | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. | | | | |
| Ubiquiot | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |

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|--|-------|---------|---------|------|--|
| PAEONIDIN-3-GLUCOSIDE | Fruit | -- | -- | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| PAEONIDIN-3-RHAMNOSEYLGLUCOSYLGUCOSIDE | Fruit | -- | -- | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| PALMITIC-ACID | Fruit | 14250.0 | 52470.0 | 0.45 | * |

Activities (13)

| | | | | | |
|-----------------------------|--|--|--|--|--|
| 5-Alpha-Reductase-Inhibitor | | | | | |
| Antialopetic | | | | | |
| Antiandrogenic | | | | | |
| Antifibrinolytic | Economic & Medicinal Plant Research, 1: 53. | | | | |
| Antioxidant IC40=60 | | | | | |
| FLavor FEMA 1 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry | | | | |
| Hemolytic | Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp. | | | | |
| Hypercholesterolemic | Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.) | | | | |
| Lubricant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Nematicide | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. | | | | |
| Pesticide | | | | | |
| Propecic | | | | | |
| Soap | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |

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|--------|-------|----|----|--|--|
| PECTIN | Fruit | -- | -- | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
|--------|-------|----|----|--|--|

Activities (24)

| | | | | | |
|-------------------------------|---|--|--|--|--|
| Antiatheromic 15 g/man/day | Cerda, J.J. Pectin in Health and Disease. HortScience, 25(12): 1485, 1990. | | | | |
| Antibacterial | | | | | |
| Antidiabetic 10 g/man/day/orl | | | | | |
| Antidiarrheic | Merck 11th Edition | | | | |
| Antienteric | | | | | |
| Antigallstone | | | | | |
| Antigastritic | | | | | |
| Antilithic | | | | | |
| Antimetastatic | | | | | |
| Antimutagenic | | | | | |
| Antiobesity | Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY. | | | | |
| Antitumor (Colon) | | | | | |
| Antitumor (Prostate) | | | | | |
| Antitussive | | | | | |
| Antiulcer | | | | | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. | | | | |
| Chemopreventive | | | | | |
| Demulcent | | | | | |
| Fungicide | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. | | | | |
| Hemostat | | | | | |
| Hypocholesterolemic | | | | | |
| Hypoglycemic | Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY. | | | | |
| Peristaltic | | | | | |
| Pesticide | | | | | |

| | | | | | |
|------------|-------|-------|-------|-------|---|
| PHOSPHORUS | Fruit | 170.0 | 780.0 | -0.74 | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |
|------------|-------|-------|-------|-------|---|

| | |
|---------------------------------|---|
| Antiosteoporotic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Anxiolytic | |
| Immunostimulant | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Osteogenic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| PHOSPHORUS | Leaf -- 900.0 -0.75 CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |
| Activities (4) | |
| Antiosteoporotic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Anxiolytic | |
| Immunostimulant | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Osteogenic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| PHYLLOQUINONE | Oil -- 0.8 -0.01 * |
| Activities (5) | |
| Antihemorrhagic 1 mg ims man | Martindale's 28th |
| Fungicide | |
| Hypotensive | |
| Pesticide | |
| Toxic | Martindale's 28th |
| PHYTATE | Fruit 20.0 170.0 -0.72 * |
| POTASSIUM | Fruit 550.0 2523.0 -1.36 CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |
| Activities (14) | |
| Angiotensin-Receptor-Blocker | |
| Antiarrhythmic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antidepressant | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antifatigue | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antihypertensive | |
| Antispasmodic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antistroke | |
| Anxiolytic | |
| Beta-Blocker | |
| Cardioprotective 3,000-5,000 mg | |
| Cardiotoxic 18,000 mg/man/day | |
| Diuretic | |
| Hypotensive | |
| Vasodilator | |
| PROTEIN | Twig -- 89000.0 -1.0 CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |
| PROTEIN | Leaf -- 131000.0 -0.81 CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |
| PROTEIN | Fruit 14000.0 64000.0 -0.61 CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |
| PROTOCATECHUIC-ACID | Fruit -- -- List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| Activities (43) | |
| Allergenic | |
| Alpha-Glucosidase-Inhibitor | |
| AntiLegionella | |
| Antiarrhythmic | Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 407. |
| Antiasthmatic | |
| Antibacterial | Lamikanra, A., Ogundaini, A.O., and Ogungbamila*, F.O. Antibacterial Constituents of Alchornea cordifolia Leaves. Phytotherapy Research 4(5): 198. |
| Anticlastogen | |
| Antihepatotoxic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antiherpetic | |
| Antiinflammatory | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antiischemic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antileukemic | |
| Antimelanogenic | ID50=0.5 uM/ml |

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| Antiodipidic | Economic & Medicinal Plant Research, 5: 363. |
| Antioxidant 2/3 querceatin | |
| Antioxidant 10 x alpha-tocopherol | |
| Antioxidant 1/2 BHT | |
| Antiperoxidant IC50=>100 uM | Planta Medica, 57: A54, 1991. |
| Antiperoxidant IC75=200 ug/ml | |
| Antiradicular | |
| Antiseptic | |
| Antispasmodic EC50=4.6-17 uM | Ortiz de Urbina, J.J., Martin, M.L., Sevilla, M.A., Montero, M.J., Carron, R., and San Roman, L. Antispasmodic Activity on Rat Smooth Muscle of Polyphenol Compounds Caffeic and Protocatechic Acids. Phytotherapy Research 4(2): 73, 1990. |
| Antitumor (Colon) | |
| Antitumor (Mouth) | |
| Antitumor (Skin) | |
| Antitussive | Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 200. |
| Antiviral | |
| Apoptotic | |
| Carcinogenic | |
| Cardioprotective | |
| Chemopreventive 100 ppm orl rat | |
| Fungicide 500 ug/ml | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Glutathione- Depleting | |
| Hepatotoxic | |
| Immunostimulant | Economic & Medicinal Plant Research, 1: 124. |
| Nephrotoxic | |
| Pesticide | |
| Phagocytotic | Economic & Medicinal Plant Research, 1: 124. |
| Prostaglandigenic | |
| Secretagogue | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Tyrosinase-Inhibitor ID50=0.5 uM/ml | |
| Ubiquot | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |

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|-----------|------|----|----|--|
| QUERCETIN | Stem | -- | -- | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
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Activities (176)

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|---|---|
| 11B-HSD-Inhibitor | |
| 5-Lipoxygenase-Inhibitor IC50 (uM)=4 | |
| ATPase-Inhibitor | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. |
| Aldehyde-Oxidase- Inhibitor IC70-96=10 uM | |
| Aldose-Reductase- Inhibitor 100 uM | |
| Aldose-Reductase- Inhibitor 4 ug/ml | Ichikawa, K., et al. 1991. Isolation and Structure Determination of Aldose Reductase Inhibitors from Traditional Thai Medicine, and Syntheses of Their Derivatives. Sankyo Kenkyusho Nempo, 43: 99-110. |
| Aldose-Reductase- Inhibitor IC50=0.84 ug/ml cow | Okada,Y,et al.1995.Search for Naturally Occurring Substances to Prevent the Complications of Diabetes.II.Inhibitory Effect of Coumarin and Flavonoid Derivatives on Bovine Lens Aldose Reductase and Rabbit Platelet Aggregation.Chem Pharm Bull43(8):1385-1387 |
| Aldose-Reductase- Inhibitor IC50=0.344 uM | Mao, X. M., Zhang, J. Q. 1993. Inhibition of Aldose Reductase by Extracts of Chinese Herbal Medicine. Zhongguo Zhongyao Zazhi , 18(10): 623-624. |
| Allelochemical IC82=1 mM | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Allergenic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Analgesic | |
| AntiCrohn's 400 mg/man/3x/day | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| AntiGTF ID50=120 ug/ml | |
| AntiHIV | |
| AntiPMs 500 mg/2x/day/wmn | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiaflatoxin IC50=25 uM | |
| Antiaflatoxin IC50=7.5 ppm | |
| Antiaggregant IC50=55 uM | Economic & Medicinal Plant Research, 5: 333. |
| Antiaggregant 30 uM | |
| Antiaging | |

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| Antialzheimeran | |
| Antianaphylactic | Meli, R., Autore, G., Di Carlo, G., Capasso, F. Inhibitory Action of Quercetin on Intestinal Transit in Mice. <i>Phytotherapy Research</i> 4(5): 201, 1990. |
| Antiangiogenic | |
| Antiarthritic | |
| Antiasthmatic IC50=14 uM | |
| Antiatherosclerotic | |
| Antibacterial | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Anticarcinomic (Breast) IC50=1.5 uM | Medline (post 1990 searches filed in my computer) |
| Anticariogenic ID50=120 ug/ml | |
| Anticataract | |
| Anticolitic 400 mg/man/3x/day | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Anticomplementary | |
| Anticystitic 1,000 mg/day/4 weeks | |
| Antidepressant | |
| Antidermatitic | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antidiabetic | |
| Antielastase IC50=0.8 ug/ml | |
| Antiecephalitic | Economic & Medicinal Plant Research, 5: 199. |
| Antiescherichic | |
| Antiestrogenic | |
| Antifeedant IC52=<1,000 ppm diet | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Antifibrosarcomic | |
| Antiflu | Vlietinck, A.J. and Dommisse, R.A. eds. 1985. <i>Advances in Medicinal Plant Research</i> . Wiss. Verlag. Stuttgart. |
| Antigastric | Rastite'nye Resursy, 21: 85. |
| Antigonadotropic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Antihepatotoxic | Joyeux, M., Rolland, A., Fleurentin, J., Mortier, F., and Dorfman, P. 1989. Tert-Butyl Hydroperoxide-Induced Injury in Isolated Rat Hepatocytes: A Model for Studying Anti-Hepatotoxic Crude Drugs. <i>Planta Medica</i> 56(2): 171-173, 1990. |
| Antiherpetic 48-150 ug/ml | |
| Antihistaminic IC50=<10 uM | |
| Antihydrophobic | Vlietinck, A.J. and Dommisse, R.A. eds. 1985. <i>Advances in Medicinal Plant Research</i> . Wiss. Verlag. Stuttgart. |
| Antihypertensive | Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp. |
| Antiinflammatory 20-150 mg/kg | Fitoterapia No.5-1990. |
| Antileishmanic IC50=64 | |
| Antileukemic IC50=10 uM | Economic & Medicinal Plant Research, 5: 225. |
| Antileukemic IC50=>10 ug/ml | Life Sciences 55: 1061. |
| Antileukemic 5.5-60 uM | |
| Antileukotriene | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antilipoperoxidant IC67=50 | |
| Antimalarial IC50=1-6.4 ug/ml | Medicinal and Poisonous Plants of the Tropics. Leeuwenberg, A.J.M., ed. Pudoc, Wageningen. 1987. |
| Antimelanomic | |
| Antimetastatic | |
| Antimutagenic ID50=2-5 nM | Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp. |
| Antimutagenic ID50=0.62 ug/ml | |
| Antimycarditic | Economic & Medicinal Plant Research, 5: 199. |
| Antinitrosaminic | |
| Antinociceptive | |
| Antioxidant IC96=300 ppm | Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp. |
| Antioxidant ED50=2.3 uM | Seidel, V., Verholle, M., Malard, Y., Tillequin, F., Fruchart, J-C., Duriez, P., Bailleul, F., Teissier, E. 2000. Phenylpropanoids from <i>Ballota nigra</i> L. Inhibit in vitro LDL Peroxidation. <i>Phytotherapy Research</i> , 14(2): 93-98. |
| Antioxidant 4.7 x Vit. E | |
| Antioxidant IC47=10 uM | |
| Antipancreatic | Joseph, J., Nadeau, D. and Underwood, A. 2001. <i>The Color Code</i> . Hyperion, NY. |
| Antiperiodontal | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiperistaltic | |
| Antipermeability | |
| Antiperoxidant | Planta Medica, 57: A110, 1991. |
| Antipharyngitic | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiplaque | Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf). |

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| Antipodriac | |
| Antipolio | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiproliferant 10 nM | |
| Antiprostanoid | |
| Antiprostatic | Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY. |
| Antipsoriac | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiradicular IC50=4.6 uM | Planta Medica, 56(6): 695, 1990. |
| Antispasmodic | |
| Antistreptococcal ID50=120 ug/ml | |
| Antithiamin | Phenolic Compounds in Food and Their Effects on Health, 69. |
| Antithrombic | |
| Antitrypanosomic IC50=13 | |
| Antitumor 10 uM | |
| Antitumor (Bladder) | |
| Antitumor (Breast) | |
| Antitumor (Colon) | |
| Antitumor (Lung) | |
| Antitumor (Ovary) | |
| Antitumor (Skin) 20 uM | |
| Antitumor-Promoter | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiulcer | |
| Antiviral IC50=10 uM | Economic & Medicinal Plant Research, 5: 225. |
| Antiviral 48-150 ug/ml | Amoros, M., Simoes, C.M.O., Girre, L., et al. Synergistic Effect Of Flavones And Flavonols Against Herpes Simplex Virus Type 1 In Cell Culture. Comparison With The Antiviral Activity Of Propolis. J. of Natural Products 55(12):1732-1740, 1992. |
| Apoptotic 20-60 uM | |
| Bacteristat 10 mg/ml | |
| Bradycardiac | Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp. |
| COMT-Inhibitor | |
| COX-2-Inhibitor <40 uM | |
| Calmodulin-Anagonist | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Candidicide | |
| Capillariprotective | Merck 11th Edition |
| Carcinogenic 40,000 ppm (diet) mus | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. |
| Catabolic | |
| Copper-Chelator | |
| Cyclooxygenase-Inhibitor | |
| Cytochrome-P450-1A2-Inhibitor | |
| Cytotoxic ED50=70 ug/ml | Matsukawa, Y., et al. The Effect of Quercetin and Other Flavonoids on Cell Cycle Progression and Growth of Human Gastric Cancer Cells. Planta Medica, 56(6): 677, 1990. |
| Cytotoxic IC82=100 ug/ml | Planta Medica, 57: A113, 1991. |
| Deiodinase-Inhibitor | Jim Duke's personal files. |
| Diaphoretic? | Lawrence Review of Natural Products, Dec-90. |
| Differentiator 5.5 uM | |
| Estrogenic 10% genistein | |
| Fungicide | |
| Glucosyl-Transferase-Inhibitor ID50=120 ug/ml | |
| HIV-RT-Inhibitor IC50=<1 ug/ml | Nakane, H., Fukushima, M., and Ono*, K. Differential Inhibition Of Reverse Transcriptase And Various DNA Polymerases By Digallic Acid And Its Derivatives. Journal of Natural Products, 53(5): 1234-1240, 1990. |
| Hemostat | Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp. |
| Hepatomagenic 5,000 ppm (diet) rat | Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp. |
| Hepatoprotective | |
| Hypoglycemic 100 mg/kg orl rat | Ivorra, M.D., Paya, M., and Villar, A. 1989. A Review of Natural Products and Plants as Potential Antidiabetic Drugs. Journal of Ethnopharmacology, 27: 243-275, 1989. |
| Inotropic | |
| Insulinogenic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Juvabional | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Larvistat 8,000 ppm diet | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Lipoxygenase-Inhibitor IC11=1.25 mM | Oszmianski, J. and Lee, C.Y. 1990. Inhibitory Effect of Phenolics on Carotene Bleaching in Vegetables. J. Agric. Food Chem. 38: 688-690. |
| Lipoxygenase-Inhibitor IC50=0.1-5 uM | |
| MAO-A-Inhibitor | |
| MMP-9-Inhibitor 20 uM | |

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| Metal-Chelator (Copper) | Seidel, V., Verholle, M., Malard, Y., Tillequin, F., Fruchart, J-C., Duriez, P., Bailleul, F., Teissier, E. 2000. Phenylpropanoids from <i>Ballota nigra</i> L. Inhibit in vitro LDL Peroxidation. <i>Phytotherapy Research</i> , 14(2): 93-98. |
| Metalloproteinase-Inhibitor IC50=>42 uM | |
| Mutagenic | |
| NADH-Oxidase-Inhibitor | |
| NEP-Inhibitor IC50=>42 uM | |
| NF-kB-Inhibitor | |
| NO-Inhibitor IC>50=125 uM | |
| NO-Inhibitor IC50=20 uM | |
| NO-Synthase-Inhibitor 5-50 uM | |
| Neuroprotective 5-25 uM | |
| Ornithine-Decarboxylase-Inhibitor <10 uM | |
| P450-Inducer 5 uM | Father Nature's Farmacy: The aggregate of all these three-letter citations. |
| P450-Inhibitor 50-100 uM | Father Nature's Farmacy: The aggregate of all these three-letter citations. |
| PGE2-Inhibitor | |
| PTK-Inhibitor 0.4-24 uM | |
| Pesticide | |
| Phospholipase-Inhibitor | |
| Plasmodicide | Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp. |
| Proliferant | |
| Prostaglandin-Synthesis-Inhibitor 40 ug/ml | Ibewuike, J. C., Ogunbamila, F. O., Ogundaini, A. O., Okeke, I. N., Bohlin, L. 1997. Antiinflammatory and Antibacterial Activities of C-methylflavonol from <i>Piliostigma thonningii</i> . <i>Phytotherapy Research</i> , 11(4): 281-284. |
| Protein-Kinase-C-Inhibitor | Naim, M., Zehavi, U., Nagy, S., and Rouseff, R.L. Hydroxycinnamic Acids as Off-Flavor Precursors in Citrus Fruits and Their Products. Phenolic Compounds in Food and Their Effects on Health, Ch.14. |
| Quinone-Reductase-Inducer 6 uM | Uda, Y., Price, K. R., Williamson, G., Rhodes, M. J. C. 1997. Induction of the Anticarcinogenic Marker Enzyme, Quinone Reductase, in Murine Hepatoma Cells In Vitro by Flavonoids. <i>Cancer Lett.</i> , 120 (2): 213-216. |
| Quinone-Reductase-Inducer 13 uM | |
| TNF-alpha-Inhibitor IC50=3.11 uM | |
| Teratologic | |
| Topoisomerase-I-Inhibitor IC50=12.8 ug/ml | |
| Topoisomerase-I-Inhibitor IC50=42 uM | |
| Topoisomerase-II-Inhibitor IC50=1-6.9 ug/ml | |
| Topoisomerase-II-Inhibitor IC50=23-40 uM | |
| Tumorigenic 0.1% diet orl rat/yr | Jim Duke's personal files. |
| Tyrosinase-Inhibitor ID50=70 uM | |
| Tyrosine-Kinase-Inhibitor | Economic & Medicinal Plant Research, 6: 170. |
| VEGF-Inhibitor | |
| Vasodilator | |
| Xanthine-Oxidase-Inhibitor IC50=>0.4 ug/ml | Chem. & Pharm. Bull. 38: 1772. |
| Xanthine-Oxidase-Inhibitor IC50=10.6 ug/ml | |
| Xanthine-Oxidase-Inhibitor 3.1 uM | |
| cAMP-Phosphodiesterase-Inhibitor | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| iNOS-Inhibitor IC50=20 uM | |

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|--------------------------|----------|----|----|--|
| QUERCETIN-3-O-RUTINOSIDE | Pericarp | -- | -- | Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar. |
| QUERCETIN-3-O-RHAMNOSIDE | Pericarp | -- | -- | Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar. |

Activities (1)

Anticomplementary

| | | | | |
|----------|----------|----|----|--|
| QUINONE | Fruit | -- | -- | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| RHAMNOSE | Fruit | -- | -- | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| RUTIN | Pericarp | -- | -- | Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar. |

Activities (87)

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|---|--|
| 5-HT-Inhibitor | |
| Aldehyde-Oxidase-Inhibitor IC27-52=10 uM | |
| Aldose-Reductase-Inhibitor 100 uM | |
| Aldose-Reductase-Inhibitor 4 ug/ml | Ichikawa, K., et al. 1991. Isolation and Structure Determination of Aldose Reductase Inhibitors from Traditional Thai Medicine, and Syntheses of Their Derivatives. <i>Sankyo Kenkyusho Nempo</i> , 43: 99-110. |
| Allelochemical | |
| AntiCVI 270 mg/man/day | |
| Antiaggregant ED50=33 nmol/kg iv | |
| Antiallergic | |
| Antiapoplectic | |
| Antiatherogenic | |
| Antiatherosclerotic | |
| Antibacterial | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Anticancer | |
| Anticapillary-Fragility 20-100 mg orl man | Merck 7th Ed. |
| Anticataract | |
| Anticlastogen | |
| Anticonvulsant | Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp. |
| Antidementia | Bruneton, J. 1999. <i>Pharmacognosy, Phytochemistry, Medicinal Plants</i> . 2nd Ed. Lavoisier Publishing, Paris. 1119 pp. |
| Antidermatitic | Bisset, N.G., ed. 1994. <i>Herbal Drugs and Phytopharmaceuticals</i> . CRC Press. Boca Raton, FL. 566 pp. |
| Antidiabetic | Jin, G-Z., Yamagata, Y., and Tomita, K.-i. 1989. Structure of Rutin Pentamethanol. <i>Chem. Pharm. Bull.</i> 38(2): 297-300, 1990. |
| Antiedemic 270 mg/day orl man | |
| Antierhythmic | |
| Antifeedant | |
| Antiglaucomic 60 mg/day | Werbach, M. 1993. <i>Healing with Food</i> . Harper Collins, New York, 443 pp. |
| Antihematuric | |
| Antihemorrhoidal | |
| Antihepatotoxic | Keeler, R.F. and Tu, A.T. eds. 1991. <i>Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6)</i> Marcel Dekker, Inc. NY. 665 pp. |
| Antiherpetic | Economic & Medicinal Plant Research, 5: 198. |
| Antihistaminic | |
| Antihypertensive | Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp. |
| Antiinflammatory 20 mg/kg | |
| Antimalarial IC50=>100 ug/ml | Khalid, S.A., Farouk, A., Geary**, T.G., and Jensen, J.B. 1985. Potential Antimalarial Candidates From African Plants: An In Vitro Approach Using <i>Plasmodium falciparum</i> *. <i>Journal of Ethnopharmacology</i> , 15: 201-209, 1986. |
| Antimelanomic | |
| Antimetastatic | |
| Antimutagenic ID50=2-5 nM | |
| Antinephritic | |
| Antinociceptive | |
| Antioxidant IC28=30 ppm | |
| Antioxidant IC50=120 uM | |
| Antioxidant IC54=10 uM | |
| Antiperioxidant IC50=10-20 uM | |
| Antiplatelet | |
| Antiproliferant 50-75 uM/l | |
| Antiprotozoal | |
| Antipurpuric | |
| Antiradicular 9 x quercetin | |
| Antispasmodic | |
| Antisunburn | |
| Antithrombogenic EC50=500 nM | |
| Antithyroid IC50=68 uM | |
| Antitrypanosomal 100 mg/kg | Planta Medica, 57: A44, 1991. |
| Antitumor | |
| Antitumor-Promoter | |
| Antiulcer | |
| Antivaricose | |
| Antiviral | |
| Apoptotic 75 uM/l | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |

| | |
|---|--|
| Catabolic | |
| Chemopreventive | |
| Cytoprotective IC50=3 uM | |
| Estrogenic? | Economic & Medicinal Plant Research, 6: 189. |
| Hemostat | |
| Hepatomagenic 20,000 ppm (diet) rat | Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507. ACS, Washington 402 pp. |
| Hepatoprotective 20 mg/kg rat | |
| Hypocholesterolemic | Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp. |
| Hypotensive | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| Immunomodulator | |
| Insecticide | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Insectiphile | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Juvabional | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Larvistat IC95=4,000-8,000 ppm diet | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Lipoxygenase-Inhibitor IC75=2.5 mM | Oszmianski, J. and Lee, C.Y. 1990. Inhibitory Effect of Phenolics on Carotene Bleaching in Vegetables. J. Agric. Food Chem. 38: 688-690. |
| Mutagenic | Economic & Medicinal Plant Research, 6: 189. |
| Myoprotective | |
| Myorelaxant | Economic & Medicinal Plant Research, 6: 189. |
| Oviposition-Stimulant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| PAF-Inhibitor | |
| Pesticide | |
| Protisticide | |
| Radioprotective | |
| Sunscreen | |
| Topoisomerase-II-Inhibitor IC50=1 ug/ml | Bernard, F. X., Sable, S., Cameron, B., Provost, J., Desnottes, J. F., Crouzet, J., Blanche, F. 1997. Glycosylated Flavones as Selective Inhibitors of Topoisomerase IV. Antimicrobial Agents & Chemotherapy, 41: 992-998. |
| Vasodilator | |
| Vasopressor | |
| cAMP-Phosphodiesterase-Inhibitor | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |

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|-------------|-------|-----|------|------|---|
| SALICYLATES | Fruit | 3.0 | 13.0 | -0.3 | * |
|-------------|-------|-----|------|------|---|

Activities (7)

| | |
|------------------|--|
| Antiaggregant | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Antiinflammatory | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Antipyretic | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Antiuricosuric | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Hyperglycemic | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Hypoglycemic | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Uricosuric | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |

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|--------------|------|----|----|---|
| SALIDROSIIDE | Seed | -- | -- | * |
|--------------|------|----|----|---|

| | | | | |
|----------------|------|----|----|---|
| SECO-IRIDIOIDS | Leaf | -- | -- | * |
|----------------|------|----|----|---|

| | | | | | |
|--------|-------|---------|----------|-------|---|
| SODIUM | Fruit | 24000.0 | 110092.0 | 10.26 | * |
|--------|-------|---------|----------|-------|---|

Activities (1)

| | |
|--------------|--|
| Hypertensive | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
|--------------|--|

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|----------|-------|----|----|--|
| SQUALENE | Fruit | -- | -- | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
|----------|-------|----|----|--|

Activities (10)

| | |
|------------------------|--|
| Antibacterial | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antioxidant | |
| Antitumor | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Chemopreventive | |
| Immunostimulant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Lipoxygenase-Inhibitor | Chemical Express, 7: 297, 1992. |
| Perfumery | Merck 11th Edition |

Sources

Sunscreen

| | | | | | |
|--------------|-------|--------|--------|------|--|
| STEARIC-ACID | Fruit | 2100.0 | 5600.0 | 0.09 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
|--------------|-------|--------|--------|------|--|

Activities (8)

5-Alpha-Reductase-Inhibitor

Cosmetic

Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

FLavor FEMA 2-4,000

Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

Hypocholesterolemic

Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)

Lubricant

Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

Perfumery

Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

Propecic

Suppository

Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

SYRINGIC-ACID

Fruit

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Activities (6)

Allelopathic

Antioxidant IC39=30 ppm

Antioxidant 1/3 BHA

Antiperoxidant IC10-70=100-200 ug/ml

Antiradicular EC50=5.5-8 ug/ml

Ubiquiot

Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

TANNINS

Leaf

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Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar.

TYROSOL

Fruit

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Activities (1)

Antioxidant

UVAOL

Pericarp

--

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Rizk, A.F.M. and Al-Nowaihi, A.S., The Phytochemistry of the Horticultural Plants of Qatar, Scientific and Applied Research Centre, University of Qatar.

Activities (6)

Antioxidant IC47=10 uM

Antiproliferative IC50=30->30 uM

Antitumor (Breast) IC50=30->30 uM

Antitumor (Stomach) IC50=30->30 uM

Cytotoxic 100-200 ppm

Lipoxygenase-Inhibitor

VANILLIC-ACID

Fruit

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Activities (24)

Aldose-Reductase-Inhibitor 100 uM/l

Allelopathic

Anthelmintic

Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

Antibacterial 1.5-15 mg/ml

Recio, M. C., Rios, J. L., and Villar, A. A review of some antimicrobial compounds isolated from medicinal plants reported in the literature 1978-1988, Phytotherapy Research, 3(4), 1989, 117-125.

Anticancer

Antifatigue

Antiinflammatory

Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

Antileukemic IC50=25-56 ug/ml

Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46.

Antioxidant IC21=30 ppm

Antioxidant 1/3 BHA

Antiperioxidant IC15-65=100-200 ug/ml

Antiradicular 7 x quercetin

Antiseptic

| | |
|--------------------|---|
| Antitumor | |
| Antitumor-Promoter | |
| Ascaricide | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Choleretic | |
| Fungicide | |
| Immunosuppressant | |
| Laxative | =ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp |
| Pesticide | |
| Ubiquiot | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |

| | | | | |
|--------------|-------|----|----|---|
| VERBASCOSIDE | Fruit | -- | -- | List, P.H. and Horhammer, L. Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
|--------------|-------|----|----|---|

Activities (20)

| | |
|---|--|
| Aldose-Reductase-Inhibitor IC50=0.39-15.1 uM | |
| Analgesic | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Antibacterial | |
| Antifeedant | |
| Antihepatotoxic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antihypertensive | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Antiinflammatory | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antileukemic ED50=2.6 ug/ml | |
| Antioxidant ED50=1 uM | Seidel, V., Verholle, M., Malard, Y., Tillequin, F., Fruchart, J-C., Duriez, P., Bailleul, F., Teissier, E. 2000. Phenylpropanoids from Ballota nigra L. Inhibit in vitro LDL Peroxidation. Phytotherapy Research, 14(2): 93-98. |
| Antiseptic | |
| Antistaph | |
| Antitumor | |
| Cytotoxic ED50=2.6 ug/ml | |
| Fungicide MIC=0.4 mg/ml | |
| Hypertensive | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Immunosuppressant | |
| Lipoxygenase-Inhibitor | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| PKC-Inhibitor | |
| Pesticide | |
| Phytoalexin | |

| | | | | | |
|-------|-------|----|----------|------|---|
| WATER | Fruit | -- | 782000.0 | 0.05 | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |
|-------|-------|----|----------|------|---|